

OM nucleic - nucleic search, using sw model

Run on: September 2, 2004, 02:56:08 ; Search time 153.864 Seconds
(without alignments)
1187.234 Million cell updates/sec

Title: US-09-801-371A-2
Perfect score: 43
Sequence: 1 tcaaaactggggcctccagaa.....actggggcctacagcttga 43

Scoring table: IDENTITY NUC
Gapop 10.0 , Gapext 1.0

Searched: 3373863 seqs, 2124099041 residues
Total number of hits satisfying chosen parameters: 6747726

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : N_Geneseq_29Jan04:*
1: geneseqn1980s:*
2: geneseqn1990s:*
3: geneseqn2000s:*
4: geneseqn2001as:*
5: geneseqn2001bs:*
6: geneseqn2002s:*
7: geneseqn2003as:*
8: geneseqn2003bs:*
9: geneseqn2003cs:*
10: geneseqn2004s:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	43	100.0	43	3	AAZ99817	Aaz99817 Cis-actin
2	43	100.0	50	3	AAZ99815	Aaz99815 Sequence
3	43	100.0	104	3	AAZ99816	Aaz99816 Cis-actin
4	43	100.0	787	2	AAZ20979	Aaz20979 Human TNF
5	43	100.0	815	1	AAN70075	Aan70075 Human ant
6	43	100.0	817	2	AAQ04340	Aaq04340 THP-1. 3/
7	43	100.0	818	1	AAN91035	Aan91035 XhoI - Ps
8	43	100.0	1200	1	AAN70072	Aan70072 Human ant
9	43	100.0	1200	1	AAN90969	Aan90969 Part of g
10	43	100.0	1275	1	AAN60558	Aan60558 Sequence
11	43	100.0	1279	9	ADE25716	Ade25716 Human CDN
12	43	100.0	1323	1	AAN60363	Aan60363 Sequence
13	43	100.0	1324	3	AAA34963	Aaa34963 Human ade
14	43	100.0	1324	3	AAF21085	Aaf21085 Human low
15	43	100.0	1324	7	ABZ96779	Abz96779 Human nuc
16	43	100.0	1560	1	AAN80219	Aan80219 Sequence
17	43	100.0	1585	1	AAN60527	Aan60527 Sequence
18	43	100.0	1585	1	AAN60557	Aan60557 Sequence
19	43	100.0	1585	7	ACA64836	Aca64836 Human TNF
20	43	100.0	1606	1	AAN60446	Aan60446 Sequence
21	43	100.0	1606	2	AAT15424	Aat15424 Human tum
22	43	100.0	1643	1	AAN71307	Aan71307 Sequence
23	43	100.0	1643	2	AAT31021	Aat31021 Human tum

24	43	100.0	1643	6	ABK13195	Abk13195 Human tum
25	43	100.0	1643	7	ACC57575	Acc57575 Polynucle
26	43	100.0	1643	7	AAL53712	Aal53712 Tumour ne
27	43	100.0	1643	7	AAD49644	Aad49644 Human tum
28	43	100.0	1643	9	ADC35185	Adc35185 Human CDN
29	43	100.0	1650	7	ACF64375	Acf64375 Human TNF
30	43	100.0	1666	9	ADE25664	Ade25664 Human CDN
31	43	100.0	2270	2	AAZ20983	Aaz20983 Chimeric
32	43	100.0	2570	2	AAZ20984	Aaz20984 Chimeric
33	43	100.0	3634	2	AAV39005	Aav39005 TNF-alpha
34	43	100.0	3634	2	AAX09014	Aax09014 Tumour ne
35	43	100.0	3634	3	AAA40760	Aaa40760 Human tum
36	43	100.0	3634	3	AAC63770	Aac63770 Human TNF
37	43	100.0	3634	7	ACF63382	Acf63382 Human TNF
38	43	100.0	3634	7	ACC57891	Acc57891 Human tum
39	43	100.0	3634	7	ACA64946	Aca64946 Human TNF
40	43	100.0	3634	8	ACD04988	Acd04988 DNA encod
41	43	100.0	6911	6	AAD45858	Aad45858 Human tum
42	43	100.0	6911	6	AAD45898	Aad45898 Human tum
43	43	100.0	7112	4	AAF86085	Aaf86085 Lymphotox
44	43	100.0	7112	5	AAF57450	Aaf57450 Human tum
45	43	100.0	7112	7	AAL51863	Aal51863 Human tum

ALIGNMENTS

RESULT 1
AAZ99817
ID AAZ99817 standard; RNA; 43 BP.
XX
AC AAZ99817;
XX
DT 12-JUL-2000 (first entry)
XX
DE Cis-acting nucleotide sequence derived from human TNF-alpha.
XX
KW Cis-acting sequence; intron removal; trans-acting factor; alpha-subunit;
KW RNA-activated protein kinase; eukaryotic initiation factor 2; eIF2alpha;
KW tumour necrosis factor alpha; TNF-alpha; gene therapy; ss.
XX
OS Homo sapiens.
XX
PN WO200014255-A1.
XX
PD 16-MAR-2000.
XX
PF 06-SEP-1999; 99WO-IL000483.
XX
PR 07-SEP-1998; 98IL-00126112.
PR 26-OCT-1998; 98IL-00126757.
XX
PA (YISS) YISSUM RES & DEV CO.
XX
PI Kaempfer R, Osman F, Jarrous N, Ben-Asouli Y;
XX
DR WPI; 2000-257000/22.
XX
PT Regulation of gene expression by mRNA splicing is carried out using a cis
PT -acting nucleotide sequence controlled by phosphorylation of the alpha-
PT subunit of eukaryotic initiation factor 2.
XX
PS Claim 5; Page 15; 75pp; English.
XX
CC The specification describes a cis-acting nucleotide sequence which is
CC capable of removing introns from a precursor transcript encoded by a gene
CC which harbours at least one cis-acting nucleotide sequence. This removal
CC is effected during the production of mRNA of the gene, and depends on
CC activation of a trans-acting factor which is an RNA-activated protein
CC kinase capable of phosphorylating the alpha-subunit of eukaryotic
CC initiation factor 2 (eIF2alpha). Insertion of a cis-acting nucleotide
CC sequence, derived from the 3' untranslated region (3'UTR) of the human
CC tumour necrosis factor alpha (TNF-alpha) gene, into another gene renders

splicing of precursor transcripts encoded by that gene sensitive to the level of RNA-activated protein kinase (PKR) activity. The sequence can be used to transform host cells to regulate gene expression at the mRNA splicing level, for gene therapy, and to produce a recombinant therapeutic (e.g. an enzyme, hormone, growth factor, cytokine, structural protein) or industrially or agriculturally applicable protein. The present sequence represents a cis-acting nucleotide sequence of the invention

Sequence 43 BP; 10 A; 13 C; 11 G; 9 T; 0 U; 0 Other;

```
Query Match      100.0%; Score 43; DB 3; Length 43;
Best Local Similarity 100.0%; Pred. NO. 3.1e-07;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
```

Qy 1 TCAAAC TGGGGCCTCCAGAACTCACTGGGGCCTACAGTTTGA 43

RESULT 2

AAZ99815
ID AAZ99815 standard; RNA; 50 BP.

AAZ99815;

12-JUL-2000 . (first entry)

Sequence of the stem loop of tumour necrosis factor- α gene.

Cis-acting sequence; intron removal; trans-acting factor; alpha-subunit;
 KW RNA-activated protein kinase; eukaryotic initiation factor 2; eIF2alpha;
 KW tumour necrosis factor alpha; TNF-alpha; gene therapy; ss.

XX OS Homo sapiens.

XX PN WO200014255-A1.

PD 16-MAR-2000.

xx
FD
06-SEP-1990

PR 07-SEP-1998; 98IL-00126112.

XX
XX
Z06-1000,
58117100

PA (YTSS / YTSSUM RES & DEV CO.
XX

PI Kaempfer R, Osman F, Jarrous N, Ben-Asouli Y;

DR WPI; 2000-257000/22.

Regulation of gene expression by mRNA splicing is carried out using a cis-acting nucleotide sequence controlled by phosphorylation of the alpha-subunit of eukaryotic initiation factor 2.

PS Example 7; Fig 5B; 75pp; English.

The specification describes a cis-acting nucleotide sequence which is capable of removing introns from a precursor transcript encoded by a gene which harbours at least one cis-acting nucleotide sequence. This removal is effected during the production of mRNA of the gene, and depends on activation of a trans-acting factor which is an RNA-activated protein kinase capable of phosphorylating the alpha-subunit of eukaryotic initiation factor 2 (eIF2alpha). Insertion of a cis-acting nucleotide sequence, derived from the 3' untranslated region (3'UTR) of the human tumour necrosis factor alpha (TNF-alpha) gene, into another gene renders splicing of precursor transcripts encoded by that gene sensitive to the level of RNA-activated protein kinase (PKR) activity. The sequence can be used to transform host cells to regulate gene expression at the mRNA splicing level, for gene therapy, and to produce a recombinant therapeutic (e.g. an enzyme, hormone, growth factor, cytokine, structural protein) or industrially or agriculturally applicable protein. The present sequence represents a fragment of the 3'UTR of human TNF-alpha

```

XX
SQ      Sequence 50 BP; 12 A; 15 C; 12 G; 0 T; 11 U; 0 Other;

Query Match      100.0%; Score 43; DB 3; Length 50;
Best Local Similarity 79.1%; Pred. No. 3.2e-07;
Matches 34; Conservative 9; Mismatches 0; Indels 0; Gaps 0;

QY      1 TCRAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
       :|||||:|||||:|||||:|||||:|||||:|||||:|||||:
       5 UCAACACUGGGGCCUCCAGAACACUACUGGGGCCUACAGCUUGA 47

```

RESULT 3

AAZ99816
ID AAZ99816 standard; RNA; 104 BP.

AC AAZ99816;

DT 12-JUL-2000 (first entry)

DE Cis-acting nucleotide sequence derived from human TNF- α .

xx	Cis-acting sequence; intron removal; trans-acting factor; alpha-subunit; RNA-activated protein kinase; eukaryotic initiation factor 2; eIF2alpha; tumour necrosis factor alpha; TNF-alpha; gene therapy; ss.
kw	

xx
Os
Homo sapiens.

XX PN WO200014255-A1.

16-MAR-2000.

06-SEP-1999:

07-SEP-1998: 98IL-00126112.

FR 26-UCI-1998;
XX 58II-00126737;
XX

FA (YISS) ISSUM RES & DEV CO
XX

PI Kaelmpfer R, Osman F, Carious N, Ben-Asouad A
XX

DR 22/1000/257000/22.
XX
WPI; 2000-257000/22.

Regulation of gene expression by mRNA splicing is carried out using a cis-acting nucleotide sequence controlled by phosphorylation of the alpha-subunit of eukaryotic initiation factor 2.

PS Claim 4: Page 15; 75pp; English.

The specification describes a cis-acting nucleotide sequence which is capable of removing introns from a precursor transcript encoded by a gene which harbours at least one cis-acting nucleotide sequence. This removal is effected during the production of mRNA of the gene, and depends on activation of a trans-acting factor which is an RNA-activated protein kinase capable of phosphorylating the alpha-subunit of eukaryotic initiation factor 2 (eIF2alpha). Insertion of a cis-acting nucleotide sequence, derived from the 3' untranslated region (3'UTR) of the human tumour necrosis factor alpha (TNF-alpha) gene, into another gene renders splicing of precursor transcripts encoded by that gene sensitive to the level of RNA-activated protein kinase (PKR) activity. The sequence can be used to transform host cells to regulate gene expression at the mRNA splicing level, for gene therapy, and to produce a recombinant therapeutic (e.g. an enzyme, hormone, growth factor, cytokine, structural protein) or industrially or agriculturally applicable protein. The present sequence represents a cis-acting nucleotide sequence of the invention

Sequence 104 BP: 23 A; 28 C; 29 G; 24 T; 0 U; 0 Other;

```
Query Match          100.0%; Score 43; DB 3; Length 104;
Best Local Similarity 100.0%; Pred. No. 3.5e-07;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
```


PR 22-SEP-1988; 88JJP-00239154.
XX
PA (SOMA/) SOMA G.
XX
DR WPI; 1990-143138/19.
XX
PT Intrinsic TNF prodn. derivation agents - contain primer and trigger, at
PT least one of which has TNF activity.
XX
XX
PS Disclosure; Page ?; 26pp; Japanese.
XX
XX Used in the prodn. of TNF prodn. agents. (Updated on 25-MAR-2003 to
CC correct PD field.)
XX
SQ Sequence 817 BP; 183 A; 268 C; 206 G; 160 T; 0 U; 0 Other;

Query Match 100.0%; Score 43; DB 2; Length 817;
Best Local Similarity 100.0%; Pred. No. 4.9e-07;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
Db 716 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 758

RESULT 7
AAN91035
ID AAN91035 standard; DNA; 818 BP.
XX
AC AAN91035;
XX
DT 27-AUG-2003 (revised)
DT 11-MAR-1990 (first entry)
XX
DE XhoI - PstI section of gene for anti-cancer peptide.
XX Anticarcinogenic agent; anti-cancer agent; THP-1 cells.
KW Anticarcinogenic agent; anti-cancer agent; THP-1 cells.
QS THP 1 cells.
XX
PN JP01095784-A.
XX
PD 13-APR-1989.
XX
PF 06-OCT-1987; 87JJP-00252174.
XX
PR 06-OCT-1987; 87JJP-00252174.
XX (SENG/) SEN G.
PA
XX WPI; 1989-154899/21.
XX
PT Novel DNA, plasmid and polypeptide(s) - useful as anticarcinogenic
PT agents.
XX
PS Fig 3; Page ?; 17pp; Japanese.
XX
CC Section of gene for anticarcinogenic peptide. It is genomic DNA or cDNA
CC from THP-1 cells. (Updated on 27-AUG-2003 to correct OS field.)
XX
SQ Sequence 818 BP; 184 A; 268 C; 206 G; 160 T; 0 U; 0 Other;

Query Match 100.0%; Score 43; DB 1; Length 818;
Best Local Similarity 100.0%; Pred. No. 4.9e-07;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
Db 717 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 759

RESULT 8
AAN70072

ID AAN70072 standard; DNA; 1200 BP.
XX
AC AAN70072;
XX
DT 25-MAR-2003 (revised)
DT 20-JAN-1991 (first entry)
XX
DE Human anti-tumor polypeptide.
XX
KW Anti-tumor; cancer; cytotoxic; ss.
XX
OS Homo sapiens.
XX
PN EP247906-A.
XX
PD C2-DEC-1987.
XX
PF C4-FEB-1987; 87EP-00400261.
XX
PR C4-FEB-1986; 86JJP-00021302.
PR C7-FEB-1986; 86JJP-00024220.
PR 17-JUL-1986; 86JJP-00169522.
XX
PA (MIZU/) MIZUNO D.
XX
PI Mizuno D, Soma GI;
XX
DR WPI; 1987-336540/48.
XX
PT Anti-tumour polypeptide(s) - prepd. using recombinant DNA prepd. from
PT genomic DNA of human acute leukaemia cell thp-1.
XX
PS Disclosure; Fig 4; 63pp; English.
XX
CC The polypeptide is cytotoxic to human tumor cells but not to normal
CC cells. They are also cytotoxic to primary cell cultures obtained from
CC metastasis lesions of patients suffering from striated muscle tumors.
CC They are also resistant to all chemotherapeutic agents. See also AAN70073
CC -75; AAP70077-78 and AAP95592. (Updated on 25-MAR-2003 to correct PR
CC field.)
XX
SQ Sequence 1200 BP; 278 A; 329 C; 340 G; 253 T; 0 U; 0 Other;

Query Match 100.0%; Score 43; DB 1; Length 1200;
Best Local Similarity 100.0%; Pred. No. 5.2e-07;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
Db 1099 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 1141

RESULT 9
AAN90969
ID AAN90969 standard; DNA; 1200 BP.
XX
AC AAN90969;
XX
DT 27-AUG-2003 (revised)
DT 25-MAR-2003 (revised)
DT 11-MAR-1990 (first entry)
XX
DE Part of gene for anti-cancer peptide.
XX
KW Anticarcinogenic agent; anti-cancer agent; THP-1 cells.
XX
OS THP 1 cells.
XX
PN JP01095784-A.
XX
PD 13-APR-1989.
XX
PF 06-OCT-1987; 87JJP-00252174.

XX 06-OCT-1987; 87JP-00252174.
XX (SENG/) SEN G.
XX WPI; 1989-154899/21.
XX Novel DNA, plasmid and polypeptide(s) - useful as anticarcinogenic
PT agents.
XX Fig 2; Page ?; 17pp; Japanese.
XX Gene for anticarcinogenic peptide. It is genomic DNA or cDNA from THP-1
CC cells. (Updated on 25-MAR-2003 to correct PA field.) (Updated on 27-AUG-
CC 2003 to correct OS field.)
XX
SQ Sequence 1200 BP; 278 A; 329 C; 340 G; 253 T; 0 U; 0 Other;
Query Match 100.0%; Score 43; DB 1; Length 1200;
Best Local Similarity 100.0%; Pred. No. 5.2e-07;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
Db 1099 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 1141
RESULT 10
AAN60558
ID AAN60558 standard; DNA; 1275 BP.
XX
AC AAN60558;
XX
BT 28-JUL-1991. (first entry)
XX
DE Sequence encoding mature human tumour necrosis factor (htNF) mutein Ser
DE 69 in pAW731.
XX
KW Antitumour; anticancer; ss.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT CDS 1..474
FT /*tag= a
XX
PN WO8604606-A.
XX
PD 14-AUG-1986.
XX
PF 03-FEB-1986; 86WO-US000236.
XX
PR 07-FEB-1985; 85US-00698939.
XX
PA (CETU) CETUS CORP.
XX
PI Mark DF, Lin LS, Lu SDY, Wang AM;
XX
DR WPI; 1986-225458/34.
DR P-PSDB; AAP60656.
XX
PT New synthetic muteins of human tumour necrosis factor protein - are obtd.
PT by direct mutagenesis and retain antitumour activity.
XX
XX Disclosure; Fig 3a; 47pp; English.
XX
CC The sequence encoding TNF produced by the promyelocytic leukemia cell
CC line (HL-60, ATCC no.CCL240) has been cloned and expressed in E.coli (see
CC AAN60557). Neither of the cysteine residues (69 and 101) in the TNF
CC sequence appears to be involved in disulphide linkages. The patentors
CC claim a novel synthetic mutein of a biologically active hTNF protein,
CC having at least one cysteine residue free from a disulphide link and non-
CC essential to the activity and having at least one of the cysteine

CC residues deleted or replaced by another AA. Plasmid pAW731 (Ser 69) is
CC claimed
XX
SQ Sequence 1275 BP; 298 A; 357 C; 308 G; 312 T; 0 U; 0 Other;
Query Match 100.0%; Score 43; DB 1; Length 1275;
Best Local Similarity 100.0%; Pred. No. 5.2e-07;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
Db 697 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 739
RESULT 11
ADE25716
ID ADE25716 standard; cDNA; 1279 BP.
XX
AC ADE25716;
XX
DT 29-JAN-2004 (first entry)
XX
DE Human cDNA differentially expressed in foam cells #120.
XX
KW Human; ss; differential expression; foam cell; LPS; lipopolysaccharide;
KW cardiovascular disease; atherosclerosis.
XX
OS Homo sapiens.
XX
PN US2003194721-A1.
XX
PD 16-OCT-2003.
XX
PF 18-SEP-2002; 2002US-00247671.
XX
PR 19-SEP-2001; 2001US-0323784P.
XX
PA (INCY-) INCYTE GENOMICS INC.
XX
PI Mikita T, Shiffman D, Porter JG, Kaser MR;
XX
DR WPI; 2003-875398/81.
DR P-PSDB; ADE25778.
XX
PT Combination containing several polynucleotide that are differentially
PT expressed in foam cells and complements of the polynucleotides, useful
PT for diagnosing cardiovascular disease or atherosclerosis.
XX
PS Claim 1; SEQ ID NO 120; 37pp; English.
XX
CC The invention relates to a combination comprising several polynucleotides
CC having any one of 127 sequences (S1) such as the sequence of human
CC calmodulin gene, human mRNA for KIAA0930 protein, leukotriene A4
CC hydrolase, human CGI-142 protein mRNA, human K+ channel beat 2 subunit
CC mRNA, etc., and their complements. The cDNAs are differentially expressed
CC in LPS (lipopolysaccharide)-treated foam cells. Also included are
CC obtaining an extended or full length gene from a library of nucleic acid
CC sequences, an expression vector containing the nucleic acids, a host cell
CC containing the vector, a purified polypeptide appearing as ADE25750 and
CC ADE25751, producing a protein by culturing the host cell, and a
CC composition comprising a purified antibody that specifically binds to the
CC proteins. The foam cell-expressed nucleic acids are useful for a high
CC throughput detection of differential expression of one or more
CC polynucleotides in a sample. The sample is from a subject with
CC atherosclerosis and comparison with a standard defines early, mid or late
CC stages of the disorder. The foam cell-expressed nucleic acids are useful
CC for high throughput screening of a library of molecules or compounds to
CC identify a ligand which binds a polynucleotide. The library is chosen
CC from DNA molecules, peptides, proteins and RNA molecules. The protein is
CC useful for a high throughput screening of library of molecules or
CC compounds to identify at least one ligand which specifically binds a
CC protein, for purifying a ligand from a sample for making an antibody. The
CC foam cell-expressed nucleic acids are useful for diagnosing

CC cardiovascular disorder. The foam cell-expressed nucleic acids are useful
CC as elements on a microarray which can be used for detecting related
CC polynucleotide in a sample, diagnosing cardiovascular disease,
CC atherosclerosis. The present sequence represents a cDNA whose expression
CC is upregulated in LPS treated foam cells.

XX
SQ Sequence 1279 BP; 293 A; 415 C; 323 G; 248 T; 0 U; 0 Other;

Query Match 100.0%; Score 43; DB 9; Length 1279;
Best Local Similarity 100.0%; Pred. No. 5.2e-07;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TCAAACTGGGGCTCCAGAACTCACTGGGGCTTGA 43
Db 1081 TCAAACTGGGGCTCCAGAACTCACTGGGGCTTGA 1123

RESULT 12
AAN60363
ID AAN60363 standard; DNA; 1323 BP.
XX
AC AAN60363;
XX
DT 19-JUN-1991 (first entry)
XX
DE Sequence encoding human tumour necrosis factor.

XX
KW hTNF; tumour; cancer; interferon; ds.
XX
OS Homo sapiens.

XX
FH Key Location/Qualifiers
FT CDS 1..534
FT /tag= a
FT sig_peptide 1..60
FT /tag= b
FT /label= Secretory leader peptide
FT mat_peptide 61..534
FT /tag= c

XX
PN EP168214-A.

XX
PD 15-JAN-1986.

XX
PF 03-JUL-1985; 85EP-00304758.

XX
PR 05-JUL-1984; 84US-00627959.

PR 05-JUL-1984; 84US-00628059.

PR 05-JUL-1984; 84US-00628060.

PR 03-DEC-1984; 84US-00677156.

PR 03-DEC-1984; 84US-00677257.

PR 03-DEC-1984; 84US-00677267.

PR 03-DEC-1984; 84US-00677454.

XX
PA (GETH) GENENTECH INC.

XX
PI Aggarwal BB, Lee SH, Goeddel DV, Nedwin GE;

XX
DR WPI; 1986-015483/03.

XX
DR P-PSDB; AAP60417.

XX
DR Pure tumour necrosis factor and mutant forms - new DNA coding sequences
and transformed cells.

XX
PS Claim 20; Fig 10; 90pp; English.

XX
CC Sequence encodes the pure human tumour necrosis factor, mutants of which
are covered by the claims. TNF and mutants are useful in treating
tumours, especially in tandem with interferon. The encoding sequence may
be used to create plasmid pTRpXAPTNF, allowing transformation of an
E.coli host for the expression of TNF

XX
SQ Sequence 1323 BP; 298 A; 385 C; 310 G; 330 T; 0 U; 0 Other;

Query Match 100.0%; Score 43; DB 1; Length 1323;
Best Local Similarity 100.0%; Pred. No. 5.3e-07;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TCAAACTGGGGCTCCAGAACTCACTGGGGCTTGA 43
Db 754 TCAAACTGGGGCTCCAGAACTCACTGGGGCTTGA 796

RESULT 13
AAA34963
ID AAA34963 standard; DNA; 1324 BP.

XX
AC AAA34963;

XX
DT 28-JUL-2000 (first entry)

XX
DE Human adenosine receptor related polynucleotide SEQ ID NO:2652.

XX
KW Human; adenosine receptor; low adenosine antisense oligonucleotide;
phosphorothioate; impaired respiration; inflammation; allergy;
allergic disease; bronchoconstriction; inhibitor; antiinflammatory;
antiallergic; antiasthmatic; cytostatic; analgesic; impaired airway;
lung disease; ischaemic condition; pulmonary vasoconstriction; asthma;
respiratory distress syndrome; pain; cystic fibrosis; emphysema;
pulmonary hypertension; chronic obstructive pulmonary disease; COPD;
cancer; leukaemia; lymphoma; carcinoma; metastasis; ss.

XX
OS Homo sapiens.

XX
PN WO200009525-A2.

XX
PD 24-FEB-2000.

XX
PF 03-AUG-1999; 99WO-US017712.

XX
PR 03-AUG-1998; 98US-0095212P.

XX
PA (UYEC-) UNIV EAST CAROLINA.

XX
PI Nyce JW;

XX
DR WPI; 2000-205971/18.

XX
PT New antisense oligonucleotides useful for treating e.g. pulmonary
vasoconstriction, inflammation, allergies, asthma, hypertension,
bronchitis, emphysema, respiratory distress syndrome, ischemia or
cancers.

XX
PS Disclosure; Page 814-815; 1343pp; English.

XX
CC The present invention describes a new composition comprising an antisense
oligonucleotide (ON) with low adenosine (up to 15%), which targets
nucleic acids involved in bronchoconstriction, allergies, and/or
inflammation. The ON can have antiinflammatory, antiallergic,
antiasthmatic, cytostatic and analgesic activities. The compositions are
useful for the treatment of diseases associated with inflammation,
impaired airways, including lung disease and diseases whose secondary
effects afflict the lungs of a subject. They can be used for treating
e.g. ischaemic conditions, pulmonary vasoconstriction, allergies, asthma,
impaired respiration, respiratory distress syndrome, pain, cystic
fibrosis, pulmonary hypertension, emphysema, chronic obstructive
pulmonary disease (COPD), and cancers such as leukaemias, lymphomas,
carcinomas, and cancers which may metastasize to the lungs, including
breast and prostate cancer. The reduction of the adenosine content of the
ONs reduces side effects. The A-containing ONs break down with the
release of deoxyadenosine which activates adenosine receptors causing
bronchoconstriction and inflammation. AAA32313 to AAA35312 represent the
nucleotide sequences given in the sequence listing from the present
invention, which correspond to SEQ ID NO:1 to 2815, and then the last 185
sequences are also called SEQ ID NO:1 to 185, but the sequences differ
from the previously named sequences. SEQ ID NO:11 to 1680 (AAA32323 to

CC AAA33992) are specifically claimed ONs from the present invention. N.B.
CC Sequences given in the disclosure of the present invention do not match
CC up with their corresponding SEQ ID NO: sequences given in the sequence
CC listing
XX
SQ Sequence 1324 BP; 298 A; 387 C; 308 G; 331 T; 0 U; 0 Other;
Query Match 100.0%; Score 43; DB 3; Length 1324;
Best Local Similarity 100.0%; Pred. No. 5.3e-07;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
Db 755 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 797
RESULT 14
AAF21085
ID AAF21085 standard; DNA; 1324 BP.
XX
AC AAF21085;
XX
DT 14-MAR-2001 (first entry)
XX Human low adenosine antisense oligonucleotide related sequence #2652.
DE
XX Low adenosine antisense oligonucleotide; phosphorothioate; allergy;
KW human; airway disorder; bronchoconstriction; lung inflammation;
KW surfactant depletion; respiratory; bronchodilator; antiinflammatory;
KW immunosuppressive; antiasthmatic; analgesic; hypotensive; cytostatic;
KW respiratory obstruction; pulmonary obstruction; impeded respiration;
KW surfactant hypoproduction; pulmonary vasoconstriction; asthma; RDS;
KW respiratory distress syndrome; pain; cystic fibrosis; allergic rhinitis;
KW pulmonary hypertension; emphysema; pulmonary transplantation rejection;
KW chronic obstructive pulmonary disease; pulmonary infection; bronchitis;
KW cancer; ss.
XX
OS Homo sapiens.
XX
PN WO200062736-A2.
XX
PD 26-OCT-2000.
XX
PF 24-MAR-2000; 2000WO-US008020.
XX
PR 06-APR-1999; 99US-0127958P.
XX
PA (UYEC-) UNIV EAST CAROLINA.
PA (NYCE/) NYCE J W.
XX
PI Nyce JW;
XX
DR WPI; 2000-679539/66.
XX
PT Low adenosine (A) content antisense oligonucleotides which do not trigger
PT adenosine receptors during metabolism, useful e.g. for treating cancers
PT and respiratory obstructions.
XX
PS Disclosure; Page 887; 1592pp; English.
XX
CC The present invention describes low adenosine (A) content antisense
CC oligonucleotides and compositions (I) comprising them. In the antisense
CC oligonucleotides the A is replaced by a 'Universal' or alternative base.
CC (I) can have respiratory, bronchodilator, antiinflammatory, analgesic,
CC immunosuppressive, antiasthmatic, hypotensive and cytostatic activities.
CC The antisense oligonucleotides and (I) can be used to down-regulate the
CC expression and or activity of target polypeptides associated with
CC lung/respiratory disorders and malignancies, such as stimulating and
CC activating peptide factors and transmitters, transcription factors,
CC immunoglobulins and antibodies, antibody receptors, cytokines and
CC chemokines, endogenously produced specific and non-specific enzymes,
CC binding proteins, adhesion molecules and their receptors, cytokine and
CC chemokine receptors, adenosine receptors, bradykinin receptors, central

CC nervous system (CNS) and peripheral nervous and non-nervous system
CC receptors, CNS and peripheral nervous and non-nervous system peptide
CC transmitters, defensins, growth factors, vasoactive peptides and
CC receptors, binding proteins and malignancy associated proteins. The
CC antisense oligonucleotides may be used in this way to treat disorders
CC including respiratory obstruction (especially pulmonary obstruction
CC and/or bronchoconstriction) and/or lung inflammation, allergy(ies) and/or
CC surfactant hypoproduction which are associated with a disease or
CC condition selected from pulmonary vasoconstriction, inflammation,
CC allergies, asthma, impeded respiration, respiratory distress syndrome
CC (RDS), pain, cystic fibrosis (CF), allergic rhinitis (AR), pulmonary
CC hypertension, emphysema, chronic obstructive pulmonary disease (COPD),
CC pulmonary transplantation rejection, pulmonary infections, bronchitis,
CC and/or cancer. AAF18434 to AAF21543 represent human polynucleotide
CC fragments and antisense oligonucleotides used in the exemplification of
CC the present invention
XX

SQ Sequence 1324 BP; 298 A; 387 C; 308 G; 331 T; 0 U; 0 Other;

Query Match 100.0%; Score 43; DB 3; Length 1324;

Best Local Similarity 100.0%; Pred. No. 5.3e-07;

Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43

Db 755 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 797

RESULT 15

ABZ96779

ID ABZ96779 standard; DNA; 1324 BP.

XX ABZ96779;

AC ABZ96779;

XX 17-OCT-2003 (first entry)

XX Human nucleic acid sequence.

XX Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.

XX Homo sapiens.

XX WO200285308-A2.

XX 31-OCT-2002.

XX 23-APR-2002; 2002WO-US013135.

XX 24-APR-2001; 2001US-0286137P.

XX (EPIG-) EPIGENESIS PHARM INC.

XX Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;

XX Miller S, Tang L, Shahabuddin S;

XX WPI; 2003-229219/22.

XX Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.

XX Disclosure; SEQ ID NO 12021; 872pp; English.

XX The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of

CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive, and
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences

XX

SQ Sequence 1324 BP; 298 A; 387 C; 308 G; 331 T; 0 U; 0 Other;

Query Match 100.0%; Score 43; DB 7; Length 1324;
Best Local Similarity 100.0%; Pred. No. 5.3e-07;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
DB 755 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 797

Search completed: September 2, 2004, 08:05:12
Job time : 154.864 secs


```

; GENERAL INFORMATION:
; APPLICANT: Kaempfer, Raymond
; APPLICANT: Osman, Farhat
; APPLICANT: Jarrous, Nayef
; APPLICANT: Ben-Asouli, Yitzhak
; TITLE OF INVENTION: REGULATION OF GENE EXPRESSION THROUGH
; TITLE OF INVENTION: MANIPULATION OF MRNA SPLICING AND ITS USES
; FILE REFERENCE: A34084-PCT-USA-A 066031.0147
; CURRENT APPLICATION NUMBER: US/09/801.371A
; CURRENT FILING DATE: 2001-03-07
; PRIOR FILING DATE: 1999-09-06
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 6
; LENGTH: 43
; TYPE: DNA
; ORGANISM: Homo sapien
US-09-801-371A-6

Query Match      100.0%; Score 43; DB 9; Length 43;
Best Local Similarity 100.0%; Pred. No. 8.3e-08;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
Db      43 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 1

RESULT 3
US-09-801-371A-8
; Sequence 8, Application US/09801371A
; Patent No. US20020155569A1
; GENERAL INFORMATION:
; APPLICANT: Kaempfer, Raymond
; APPLICANT: Osman, Farhat
; APPLICANT: Jarrous, Nayef
; APPLICANT: Ben-Asouli, Yitzhak
; TITLE OF INVENTION: REGULATION OF GENE EXPRESSION THROUGH
; TITLE OF INVENTION: MANIPULATION OF MRNA SPLICING AND ITS USES
; FILE REFERENCE: A34084-PCT-USA-A 066031.0147
; CURRENT APPLICATION NUMBER: US/09/801.371A
; CURRENT FILING DATE: 2001-03-07
; PRIOR FILING DATE: 1999-09-06
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 8
; LENGTH: 50
; TYPE: RNA
; ORGANISM: Homo sapien
US-09-801-371A-8

Query Match      100.0%; Score 43; DB 9; Length 50;
Best Local Similarity 79.1%; Pred. No. 8.3e-08;
Matches 34; Conservative 9; Mismatches 0; Indels 0; Gaps 0;

QY      1 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
Db      5 UCAAAACUGGGCCUCCAGAACUCACUGGGCCUACAGCUUUGA 47

RESULT 4
US-09-801-371A-7
; Sequence 7, Application US/09801371A
; Patent No. US20020155569A1
; GENERAL INFORMATION:
; APPLICANT: Kaempfer, Raymond
; APPLICANT: Osman, Farhat
; APPLICANT: Jarrous, Nayef
; APPLICANT: Ben-Asouli, Yitzhak
; TITLE OF INVENTION: REGULATION OF GENE EXPRESSION THROUGH
; TITLE OF INVENTION: MANIPULATION OF MRNA SPLICING AND ITS USES

```

```

; FILE REFERENCE: A34084-PCT-USA-A 066031.0147
; CURRENT APPLICATION NUMBER: US/09/801.371A
; CURRENT FILING DATE: 2001-03-07
; PRIOR APPLICATION NUMBER: PCT WO 00/14255
; PRIOR FILING DATE: 1999-09-06
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 7
; LENGTH: 81
; TYPE: RNA
; ORGANISM: Homo sapien
US-09-801-371A-7

Query Match      100.0%; Score 43; DB 9; Length 81;
Best Local Similarity 79.1%; Pred. No. 8.3e-08;
Matches 34; Conservative 9; Mismatches 0; Indels 0; Gaps 0;

QY      1 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
Db      9 UCAAAACUGGGCCUCCAGAACUCACUGGGCCUACAGCUUUGA 51

RESULT 5
US-09-801-371A-1
; Sequence 1, Application US/09801371A
; Patent No. US20020155569A1
; GENERAL INFORMATION:
; APPLICANT: Kaempfer, Raymond
; APPLICANT: Osman, Farhat
; APPLICANT: Jarrous, Nayef
; APPLICANT: Ben-Asouli, Yitzhak
; TITLE OF INVENTION: REGULATION OF GENE EXPRESSION THROUGH
; TITLE OF INVENTION: MANIPULATION OF MRNA SPLICING AND ITS USES
; FILE REFERENCE: A34084-PCT-USA-A 066031.0147
; CURRENT APPLICATION NUMBER: US/09/801.371A
; CURRENT FILING DATE: 2001-03-07
; PRIOR APPLICATION NUMBER: PCT WO 00/14255
; PRIOR FILING DATE: 1999-09-06
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 104
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-801-371A-1

Query Match      100.0%; Score 43; DB 9; Length 104;
Best Local Similarity 100.0%; Pred. No. 8.3e-08;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
Db      5 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 47

RESULT 6
US-09-801-371A-5/c
; Sequence 5, Application US/09801371A
; Patent No. US20020155569A1
; GENERAL INFORMATION:
; APPLICANT: Kaempfer, Raymond
; APPLICANT: Osman, Farhat
; APPLICANT: Jarrous, Nayef
; APPLICANT: Ben-Asouli, Yitzhak
; TITLE OF INVENTION: REGULATION OF GENE EXPRESSION THROUGH
; TITLE OF INVENTION: MANIPULATION OF MRNA SPLICING AND ITS USES
; FILE REFERENCE: A34084-PCT-USA-A 066031.0147
; CURRENT APPLICATION NUMBER: US/09/801.371A
; CURRENT FILING DATE: 2001-03-07
; PRIOR APPLICATION NUMBER: PCT WO 00/14255
; PRIOR FILING DATE: 1999-09-06
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: FastSEQ for Windows Version 4.0

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; SEQ ID NO 5
; LENGTH: 104
; TYPE: DNA
; ORGANISM: Homo sapien
US-09-801-371A-5

Query Match      100.0%; Score 43; DB 9; Length 104;
Best Local Similarity 100.0%; Pred. No. 8.3e-08;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
Db      100 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 58

RESULT 7
US-10-356-308A-13
; Sequence 13, Application US/10356308A
; Publication No. US20040039186A1
; GENERAL INFORMATION:
; APPLICANT: Tatake, Revati J.
; APPLICANT: Marlin, Steven D.
; APPLICANT: Barton, Randall Wilber
; TITLE OF INVENTION: Self-Regulated Apoptosis of Inflammatory Cells by Gene Therapy
; FILE REFERENCE: 9/121-1-CIP1
; CURRENT FILING DATE: 2003-01-31
; PRIOR APPLICATION NUMBER: US/10/356,308A
; PRIOR FILING DATE: 1998-02-27
; PRIOR FILING DATE: 1998-02-27
; PRIOR FILING DATE: 1997-02-28
; NUMBER OF SEQ ID NOS: 13
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 13
; LENGTH: 787
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; LOCATION: 1 to 787
; OTHER INFORMATION: TNFa 3' untranslated region
; PUBLICATION INFORMATION:
; AUTHORS: Nedwin, G.E., et al.
; JOURNAL: Nucleic Acid Research
; VOLUME: 13
; PAGES: 6361-6373
; DATE: 1985
US-10-356-308A-13

Query Match      100.0%; Score 43; DB 13; Length 787;
Best Local Similarity 100.0%; Pred. No. 8.3e-08;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
Db      226 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 268

RESULT 8
US-10-247-671-120
; Sequence 120, Application US/10247671
; Publication No. US20030194721A1
; GENERAL INFORMATION:
; APPLICANT: Mikita, Thomas
; APPLICANT: Shiffman, Dov
; APPLICANT: Porter, Gordon, J.
; APPLICANT: Kaser, Matthew R.
; TITLE OF INVENTION: GENES EXPRESSED IN TREATED FOAM CELLS
; FILE REFERENCE: PA-0050 US
; CURRENT APPLICATION NUMBER: US/10/247,671
; CURRENT FILING DATE: 2002-09-18
; PRIOR APPLICATION NUMBER: 60/323,784
; PRIOR FILING DATE: 2001-09-19
; NUMBER OF SEQ ID NOS: 186
```

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; SOFTWARE: PERL Program
; SEQ ID NO 120
; LENGTH: 1279
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: misc_feature
; OTHER INFORMATION: Ipcyte ID No. US20030194721A1 561301CB1
US-10-247-671-120

Query Match      100.0%; Score 43; DB 15; Length 1279;
Best Local Similarity 100.0%; Pred. No. 8.3e-08;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
Db      1081 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 1123

RESULT 9
US-10-342-887-501
; Sequence 501, Application US/10342887
; Publication No. US20040058340A1
; GENERAL INFORMATION:
; APPLICANT: Dai, Hongyue
; APPLICANT: He, Yudong
; APPLICANT: Linsley, Peter S.
; APPLICANT: Mao, Mao
; APPLICANT: Roberts, Christopher J.
; APPLICANT: Van 't Veer, Laura Johanna
; APPLICANT: Van de Vijver, Marc J.
; APPLICANT: Bernards, Rene
; TITLE OF INVENTION: Diagnosis and Prognosis of Breast Cancer Patients
; FILE REFERENCE: 9301-188-999
; CURRENT APPLICATION NUMBER: US/10/342,887
; CURRENT FILING DATE: 2003-01-15
; PRIOR APPLICATION NUMBER: 60/298,918
; PRIOR FILING DATE: 2001-06-18
; PRIOR APPLICATION NUMBER: 60/380,710
; PRIOR FILING DATE: 2002-05-14
; PRIOR APPLICATION NUMBER: 10/172,118
; PRIOR FILING DATE: 2002-06-14
; NUMBER OF SEQ ID NOS: 2699
; SEQ ID NO 501
; LENGTH: 1585
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-342-887-501

Query Match      100.0%; Score 43; DB 13; Length 1585;
Best Local Similarity 100.0%; Pred. No. 8.3e-08;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
Db      1007 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 1049
```

```
RESULT 10
US-10-172-118-501
; Sequence 501, Application US/10172118
; Publication No. US20030224374A1
; GENERAL INFORMATION:
; APPLICANT: Dai, Hongyue
; APPLICANT: He, Yudong
; APPLICANT: Linsley, Peter
; APPLICANT: Mao, Mao
; APPLICANT: Roberts, Chris
; APPLICANT: Van 't Veer, Laura
; APPLICANT: Van de Vijver, Marc
; APPLICANT: Bernards, Rene
; TITLE OF INVENTION: Diagnosis and Prognosis of Breast Cancer Patients
; FILE REFERENCE: 9301-175-999
```

;; CURRENT APPLICATION NUMBER: US/10/172,118
;; CURRENT FILING DATE: 2002-06-14
;; PRIOR APPLICATION NUMBER: 60/380,770
;; PRIOR FILING DATE: 2002-05-14
;; NUMBER OF SEQ ID NOS: 2699
;; SEQ ID NO 501
;; LENGTH: 1585
;; TYPE: DNA
;; ORGANISM: Homo sapiens
;; PUBLICATION INFORMATION:
;; DATABASE ACCESSION NUMBER: NM_000594
;; DATABASE ENTRY DATE: 2001-06-18
US-10-172-118-501

Query Match 100.0%; Score 43; DB 13; Length 1585;
Best Local Similarity 100.0%; Pred. No. 8.3e-08;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
|||
Db 1007 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 1049

RESULT 11
US-10-641-643-1329
; Sequence 1329, Application US/10641643
; Publication No. US20040077003A1
; GENERAL INFORMATION:
; APPLICANT: Cocks, Benjamin G.
; Susan G. Stuart
; Jeffrey J. Seilhamer
; TITLE OF INVENTION: COMPOSITION FOR THE DETECTION OF BLOOD CELL
; GENE EXPRESSION
; NUMBER OF SEQUENCES: 1508
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: INCYTE PHARMACEUTICALS, INC.
; STREET: 3174 PORTER DRIVE
; CITY: PALO ALTO
; STATE: CALIFORNIA
; COUNTRY: USA
; ZIP: 94304
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/641,643
; FILING DATE: 14-Aug-2003
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: <Unknown>
; FILING DATE: <Unknown>
; ATTORNEY/AGENT INFORMATION:
; NAME: Zeller, Karen J.
; REGISTRATION NUMBER: 37,071
; REFERENCE/DOCKET NUMBER: PA-0001 US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (650) 855-0555
; TELEFAX: (650) 845-4166
; INFORMATION FOR SEQ ID NO: 1329:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1585 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; IMMEDIATE SOURCE:
; LIBRARY: GENBANK
; CLONE: g339737
; SEQUENCE DESCRIPTION: SEQ ID NO: 1329 :

Query Match 100.0%; Score 43; DB 17; Length 1585;

Best Local Similarity 100.0%; Pred. No. 8.3e-08;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
|||
Db 1007 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 1049

RESULT 12
US-10-342-887-1901
; Sequence 1901, Application US/10342887
; Publication No. US20040058340A1
; GENERAL INFORMATION:
; APPLICANT: Dai, Hongyue
; APPLICANT: He, Yudong
; APPLICANT: Linsley, Peter S.
; APPLICANT: Mao, Mao
; APPLICANT: Roberts, Christopher J.
; APPLICANT: Van 't Veer, Laura Johanna
; APPLICANT: Van de Vijver, Marc J.
; APPLICANT: Bernards, Rene
; TITLE OF INVENTION: Diagnosis and Prognosis of Breast Cancer Patients
; FILE REFERENCE: 9301-188-999
; CURRENT APPLICATION NUMBER: US/10/342,887
; CURRENT FILING DATE: 2003-01-15
; PRIOR APPLICATION NUMBER: 60/298,918
; PRIOR FILING DATE: 2001-06-18
; PRIOR APPLICATION NUMBER: 60/380,710
; PRIOR FILING DATE: 2002-05-14
; PRIOR APPLICATION NUMBER: 10/172,118
; PRIOR FILING DATE: 2002-06-14
; NUMBER OF SEQ ID NOS: 2699
; SEQ ID NO 1901
; LENGTH: 1643
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-342-887-1901

Query Match 100.0%; Score 43; DB 13; Length 1643;
Best Local Similarity 100.0%; Pred. No. 8.3e-08;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
|||
Db 1074 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 1116

RESULT 13
US-10-172-118-1901
; Sequence 1901, Application US/10172118
; Publication No. US20030224374A1
; GENERAL INFORMATION:
; APPLICANT: Dai, Hongyue
; APPLICANT: He, Yudong
; APPLICANT: Linsley, Peter
; APPLICANT: Mao, Mao
; APPLICANT: Roberts, Chris
; APPLICANT: Van 't Veer, Laura
; APPLICANT: Van de Vijver, Marc
; APPLICANT: Bernards, Rene
; TITLE OF INVENTION: Diagnosis and Prognosis of Breast Cancer Patients
; FILE REFERENCE: 9301-175-999
; CURRENT APPLICATION NUMBER: US/10/172,118
; CURRENT FILING DATE: 2002-06-14
; PRIOR APPLICATION NUMBER: 60/380,770
; PRIOR FILING DATE: 2002-05-14
; NUMBER OF SEQ ID NOS: 2699
; SEQ ID NO 1901
; LENGTH: 1643
; TYPE: DNA
; ORGANISM: Homo sapiens
; PUBLICATION INFORMATION:
; DATABASE ACCESSION NUMBER: X01394

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; DATABASE ENTRY DATE: 2001-06-18
US-10-172-118-1901
Query Match      100.0%; Score 43; DB 13; Length 1643;
Best Local Similarity 100.0%; Pred. No. 8.3e-08;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
Db 1074 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 1116

RESULT 14
US-10-272-411-4
; Sequence 4, Application US/10272411
; Publication No. US20030100068A1
; GENERAL INFORMATION:
; APPLICANT: Barnes Jewish Hospital
; APPLICANT: Lam, Jonathan
; APPLICANT: Ross, F. Patrick
; APPLICANT: Teitelbaum, Steven
; TITLE OF INVENTION: RANKL MIMICS AND USES THEREOF
; FILE REFERENCE: 60019620-0202
; CURRENT APPLICATION NUMBER: US/10/272,411
; CURRENT FILING DATE: 2002-10-15
; PRIOR APPLICATION NUMBER: 60/329,393
; PRIOR FILING DATE: 2001-10-15
; NUMBER OF SEQ ID NOS: 52
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 4
; LENGTH: 1643
; TYPE: DNA
; ORGANISM: Homo sapiens
; PUBLICATION INFORMATION:
; DATABASE ACCESSION NUMBER: NCBI/ X01394.1
; DATABASE ENTRY DATE: 1995-03-21
; RELEVANT RESIDUES: (1)..(1643)
; PUBLICATION INFORMATION:
; DATABASE ACCESSION NUMBER: NCBI/ BC028148.1
; DATABASE ENTRY DATE: 2002-05-01
; RELEVANT RESIDUES: (1)..(1643)
; PUBLICATION INFORMATION:
; DATABASE ACCESSION NUMBER: NCBI/ M35592.1
; DATABASE ENTRY DATE: 1993-04-27
; RELEVANT RESIDUES: (1)..(1643)
; PUBLICATION INFORMATION:
; DATABASE ACCESSION NUMBER: NCBI/ XM_165823.1
; DATABASE ENTRY DATE: 2002-08-01
; RELEVANT RESIDUES: (1)..(1643)
US-10-272-411-4

Query Match      100.0%; Score 43; DB 15; Length 1643;
Best Local Similarity 100.0%; Pred. No. 8.3e-08;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
Db 1074 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 1116

RESULT 15
US-10-218-547-3
; Sequence 3, Application US/10218547
; Publication No. US20030100074A1
; GENERAL INFORMATION:
; APPLICANT: Human Genome Sciences, Inc.
; TITLE OF INVENTION: Methods And Compositions For Treating Metabolic Bone Diseases Rel
; TITLE OF INVENTION: Human Endokine Alpha
; FILE REFERENCE: PF561
; CURRENT APPLICATION NUMBER: US/10/218,547
; CURRENT FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: 60/312,542
; PRIOR FILING DATE: 2001-08-16
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OM nucleic - nucleic search, using sw model

Run on: September 13, 2004, 02:02:56 ; Search time 25.449 Seconds
(without alignments)
937.676 Million cell updates/sec

Title: US-09-801-371A-2
Perfect score: 43
Sequence: 1 tcaactggggcctccagaa.....actgggctacagcttga 43

Scoring table: IDENTITY NUC
Gapop 10.0 , Gapext 1.0

Searched: 682709 seqs, 277475446 residues

Total number of hits satisfying chosen parameters: 1365418

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued Patents NA:*
1: /cgn2_6/ptodata/2/ina/5A_COMB.seq:*
2: /cgn2_6/ptodata/2/ina/5B_COMB.seq:*
3: /cgn2_6/ptodata/2/ina/6A_COMB.seq:*
4: /cgn2_6/ptodata/2/ina/6B_COMB.seq:*
5: /cgn2_6/ptodata/2/ina/PTUS_COMB.seq:*
6: /cgn2_6/ptodata/2/ina/backfiles1.seq:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	43	100.0	787	4	US-09-032-297A-13
2	43	100.0	787	4	US-09-229-151C-7
3	43	100.0	1585	4	US-09-023-655-1329
4	43	100.0	1643	3	US-08-880-342-36
5	43	100.0	1643	4	US-09-505-250-4
6	43	100.0	2270	4	US-09-229-151C-13
7	43	100.0	2570	4	US-09-229-151C-14
8	43	100.0	3634	3	US-09-166-186-1
9	43	100.0	3634	3	US-09-313-932-1
10	43	100.0	3634	3	US-09-109-663-34
11	21.4	49.8	1274	4	US-09-148-545-72
12	21.4	49.8	1296	4	US-09-148-545-126
13	21.4	49.8	24707	4	US-09-740-027-3
14	21	48.8	771	5	PCT-US95-12987-1
15	21	48.8	771	5	PCT-US95-12987-3
16	21	48.8	771	5	PCT-US95-12987-5
17	20.8	48.4	493	4	US-09-621-976-978
18	20.8	48.4	509	4	US-09-621-976-2765
19	20.8	48.4	534	4	US-09-621-976-714
20	20.8	48.4	557	4	US-09-833-381-551
21	20.8	48.4	861	1	US-08-409-731A-1
22	20.8	48.4	861	2	US-08-470-298B-1
23	20.8	48.4	861	2	US-09-023-073A-1
24	20.8	48.4	861	3	US-09-361-737-1
25	20.8	48.4	944	2	US-08-820-825-1
26	20.8	48.4	944	3	US-09-307-817-1
27	20.8	48.4	944	4	US-09-734-036-1

28	20.8	48.4	957	3	US-08-899-031-2	Sequence 2, Appli
29	20.8	48.4	1327	4	US-09-833-381-1346	Sequence 1346, Ap
30	20.8	48.4	65042	4	US-09-784-316-3	Sequence 3, Appli
31	20	46.5	20	3	US-09-166-186-32	Sequence 32, Appli
32	20	46.5	20	3	US-09-166-186-212	Sequence 212, App
33	20	46.5	20	3	US-09-166-186-213	Sequence 213, App
34	20	46.5	20	3	US-09-166-186-214	Sequence 214, App
35	20	46.5	20	3	US-09-313-932-32	Sequence 32, Appli
36	20	46.5	20	3	US-09-313-932-212	Sequence 212, App
37	20	46.5	20	3	US-09-313-932-213	Sequence 213, App
38	20	46.5	20	3	US-09-313-932-214	Sequence 214, App
39	20	46.5	20	3	US-09-313-932-354	Sequence 354, App
40	20	46.5	20	3	US-09-313-932-357	Sequence 357, App
41	20	46.5	20	3	US-09-313-932-358	Sequence 358, App
42	20	46.5	20	3	US-09-313-932-361	Sequence 361, App
43	20	46.5	20	3	US-09-313-932-468	Sequence 468, App
44	19.8	46.0	459	4	US-09-621-976-979	Sequence 979, App
45	19.8	46.0	3271	4	US-09-548-797B-1	Sequence 1, Appli

ALIGNMENTS

RESULT 1
US-09-032-297A-13
; Sequence 13, Application US/09032297A
; Patent No. 6525184
; GENERAL INFORMATION:
; APPLICANT: Revati J. Tatake, Steven D. Marlin and
; Randall W. Barton
; TITLE OF INVENTION: Self-Regulated Apoptosis of
; Inflammatory Cells by Gene Therapy
; NUMBER OF SEQUENCES: 13
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Boehringer Ingelheim Corporation
; STREET: 900 Ridgebury Road, P.O. Box 368
; CITY: Ridgefield
; STATE: Connecticut
; COUNTRY: United States of America
; ZIP: 06877-0368
; COMPUTER READABLE FORM:
; MEDIUM TYPE: 3.5" 1.44 Mb diskette
; COMPUTER: IBM PC
; OPERATING SYSTEM: MS DOS
; SOFTWARE: Word Processing
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/032,297A
; FILING DATE: 27-Feb-1998
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 60/038,266
; FILING DATE: 28-FEB-97
; ATTORNEY/AGENT INFORMATION:
; NAME: Robert P. Raymond
; REGISTRATION NUMBER: 25089
; REFERENCE/DOCKET NUMBER: 9/121PCT
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 203-791-6183
; INFORMATION FOR SEQ ID NO: 13:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 787
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: <Unknown>
; DESCRIPTION: DNA
; FEATURE:
; NAME/KEY: TNFa 3' untranslated region
; SEQUENCE DESCRIPTION: SEQ ID NO: 13:
US-09-032-297A-13
Query Match 100.0%; Score 43; DB 4; Length 787;
Best Local Similarity 100.0%; Pred. No. 1.7e-08;

Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
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Db 226 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 268

RESULT 2

US-09-229-151C-7
; Sequence 7, Application US/09229151C
; Patent No. 6537784
; GENERAL INFORMATION:
; APPLICANT: Tatake, Revati J.
; APPLICANT: Marlin, Steven D.
; APPLICANT: Barton, Randall W.
; TITLE OF INVENTION: Self-Regulated Apoptosis of Inflammatory Cells by Gene Therapy
; FILE REFERENCE: 9/137
; CURRENT APPLICATION NUMBER: US/09/229,151C
; CURRENT FILING DATE: 1999-01-12
; PRIOR APPLICATION NUMBER: US 60/076,316
; PRIOR FILING DATE: 1998-02-27
; NUMBER OF SEQ ID NOS: 15
; SOFTWARE: PatentIn version 2.0
; SEQ ID NO 7
; LENGTH: 787
; TYPE: DNA
; ORGANISM: Human
; FEATURE:
; OTHER INFORMATION: TNF-alpha untranslated region

US-09-229-151C-7

Query Match 100.0%; Score 43; DB 4; Length 787;
Best Local Similarity 100.0%; Pred. No. 1.7e-08;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
|||||
Db 226 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 268

RESULT 3

US-09-023-655-1329
; Sequence 1329, Application US/09023655
; Patent No. 6607879
; GENERAL INFORMATION:
; APPLICANT: Cocks, Benjamin G.
; APPLICANT: Susan G. Stuart
; APPLICANT: Jeffrey J. Seilhamer
; TITLE OF INVENTION: COMPOSITION FOR THE DETECTION OF BLOOD CELL GENE
; TITLE OF INVENTION: EXPRESSION
; NUMBER OF SEQUENCES: 1508
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: INCYTE PHARMACEUTICALS, INC.
; STREET: 3174 PORTER DRIVE
; CITY: PALO ALTO
; STATE: CALIFORNIA
; COUNTRY: USA
; ZIP: 94304
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/023,655
; FILING DATE: HEREWITH
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: Zeller, Karen J.

REGISTRATION NUMBER: 37,071
REFERENCE/DOCKET NUMBER: PA-0001 US
TELECOMMUNICATION INFORMATION:
TELEPHONE: (650) 855-0555
TELEFAX: (650) 845-4166
INFORMATION FOR SEQ ID NO: 1329:
SEQUENCE CHARACTERISTICS:
LENGTH: 1585 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
IMMEDIATE SOURCE:
LIBRARY: GENBANK
CLONE: g339737
US-09-023-655-1329

Query Match 100.0%; Score 43; DB 4; Length 1585;
Best Local Similarity 100.0%; Pred. No. 1.9e-08;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
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Db 1007 TCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGA 1049

RESULT 4

US-08-880-342-36
; Sequence 36, Application US/08880342
; Patent No. 6218179
; GENERAL INFORMATION:
; APPLICANT: Webster, Keith A.
; APPLICANT: Bishopric, Nanette H.
; APPLICANT: Murphy, Brian
; APPLICANT: Laderoute, Keith R.
; APPLICANT: Green, Christopher J.
; TITLE OF INVENTION: Tissue Specific Hypoxia Regulated
; TITLE OF INVENTION: Therapeutic Constructs
; NUMBER OF SEQUENCES: 37
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Dehlinger & Associates
; STREET: 350 Cambridge Avenue, Suite 250
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94306
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/880,342
; FILING DATE: 23-JUN-1997
; CLASSIFICATION: 514
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: PCT/IB95/00996
; FILING DATE: 13-NOV-1995
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/365,486
; FILING DATE: 23-DEC-1994
; ATTORNEY/AGENT INFORMATION:
; NAME: Sholtz, Charles K.
; REGISTRATION NUMBER: 38,615
; REFERENCE/DOCKET NUMBER: 8255-0018.30
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 324-0880
; TELEFAX: (415) 324-0960
; INFORMATION FOR SEQ ID NO: 36:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1643 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: double
; TOPOLOGY: unknown

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; MOLECULE TYPE: DNA (genomic)
; HYPOTHETICAL: NO
; ANTI-SENSE: NO
; ORIGINAL SOURCE:
; INDIVIDUAL ISOLATE: TNF CDNA HSTNFR (EMBL Accession
; INDIVIDUAL ISOLATE: #X01394)
; FEATURE:
; NAME/KEY: CDS
; LOCATION: 153..851
US-08-880-342-36

Query Match      100.0%; Score 43; DB 3; Length 1643;
Best Local Similarity 100.0%; Pred. No. 1.9e-08;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 TCAAACTGGGGCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
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Db      1074 TCARACTGGGGCTCCAGAACTCACTGGGGCCTACAGCTTTGA 1116

RESULT 5
US-09-505-250-4
; Sequence 4, Application US/09505250A
; Patent No. 6329148
; GENERAL INFORMATION:
; APPLICANT: Rosen, Glenn
; APPLICANT: Kao, Peter
; TITLE OF INVENTION: Synergistic Anti-Cancer Therapy with
; FILE REFERENCE: SUN-109PRV2
; CURRENT APPLICATION NUMBER: US/09/505,250A
; CURRENT FILING DATE: 2000-02-15
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 4
; LENGTH: 1643
; TYPE: DNA
; ORGANISM: H. sapiens
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (153)...(854)
US-09-505-250-4

Query Match      100.0%; Score 43; DB 4; Length 1643;
Best Local Similarity 100.0%; Pred. No. 1.9e-08;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 TCAAACTGGGGCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
      |||
Db      1074 TCARACTGGGGCTCCAGAACTCACTGGGGCCTACAGCTTTGA 1116

RESULT 6
US-09-229-151C-13
; Sequence 13, Application US/09229151C
; Patent No. 6537784
; GENERAL INFORMATION:
; APPLICANT: Tatake, Revati J.
; APPLICANT: Marlin, Steven D.
; APPLICANT: Barton, Randall W.
; TITLE OF INVENTION: Self-Regulated Apoptosis of Inflammatory Cells by Gene Therapy
; FILE REFERENCE: 9/137
; CURRENT APPLICATION NUMBER: US/09/229,151C
; CURRENT FILING DATE: 1999-01-12
; PRIOR APPLICATION NUMBER: US 60/076,316
; PRIOR FILING DATE: 1998-02-27
; NUMBER OF SEQ ID NOS: 15
; SOFTWARE: PatentIn version 2.0
; SEQ ID NO 13
; LENGTH: 2270
; TYPE: DNA
; ORGANISM: Human
; FEATURE:
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; OTHER INFORMATION: chimeric gene : -706TNFpGB3'UTR
US-09-229-151C-13

Query Match      100.0%; Score 43; DB 4; Length 2270;
Best Local Similarity 100.0%; Pred. No. 2.1e-08;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 TCAAACTGGGGCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
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Db      1709 TCAAACTGGGGCTCCAGAACTCACTGGGGCCTACAGCTTTGA 1751

RESULT 7
US-09-229-151C-14
; Sequence 14, Application US/09229151C
; Patent No. 6537784
; GENERAL INFORMATION:
; APPLICANT: Tatake, Revati J.
; APPLICANT: Marlin, Steven D.
; APPLICANT: Barton, Randall W.
; TITLE OF INVENTION: Self-Regulated Apoptosis of Inflammatory Cells by Gene Therapy
; FILE REFERENCE: 9/137
; CURRENT APPLICATION NUMBER: US/09/229,151C
; CURRENT FILING DATE: 1999-01-12
; PRIOR APPLICATION NUMBER: US 60/076,316
; PRIOR FILING DATE: 1998-02-27
; NUMBER OF SEQ ID NOS: 15
; SOFTWARE: PatentIn version 2.0
; SEQ ID NO 14
; LENGTH: 2570
; TYPE: DNA
; ORGANISM: Human
; FEATURE:
; OTHER INFORMATION: chimeric gene : -1005TNFpGB3'UTR
US-09-229-151C-14

Query Match      100.0%; Score 43; DB 4; Length 2570;
Best Local Similarity 100.0%; Pred. No. 2.1e-08;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 TCAAACTGGGGCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
      |||
Db      2009 TCAAACTGGGGCTCCAGAACTCACTGGGGCCTACAGCTTTGA 2051

RESULT 8
US-09-166-186-1
; Sequence 1, Application US/09166186A
; Patent No. 6080580
; GENERAL INFORMATION:
; APPLICANT: Baker, Brenda
; APPLICANT: Bennett, C. Frank
; APPLICANT: Butler, Madeline M.
; APPLICANT: Shanahan, William R.
; TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDE MODULATION OF TNF-a EXPRESSION
; FILE REFERENCE: ISPH-0322
; CURRENT APPLICATION NUMBER: US/09/166,186A
; CURRENT FILING DATE: 1998-10-05
; NUMBER OF SEQ ID NOS: 250
; SEQ ID NO 1
; LENGTH: 3634
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (796..981,1589..1634,1822..1869,2171..2592)
; FEATURE:
; NAME/KEY: exon
; LOCATION: (615)..(981)
; FEATURE:
; NAME/KEY: intron
; LOCATION: (982)..(1588)
; FEATURE:
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; NAME/KEY: exon
; LOCATION: (1589)..(1634)
; FEATURE:
; NAME/KEY: intron
; LOCATION: (1635)..(1821)
; FEATURE:
; NAME/KEY: exon
; LOCATION: (1822)..(1869)
; FEATURE:
; NAME/KEY: intron
; LOCATION: (1870)..(2070)
; FEATURE:
; NAME/KEY: exon
; LOCATION: (2171)..(3381)
; PUBLICATION INFORMATION:
; AUTHORS: Nedwin, G.E.
; AUTHORS: Naylor, S.L.
; AUTHORS: Sakaguchi, A.Y.
; AUTHORS: Smith, D.
; AUTHORS: Jarrett-Nedwin, J.
; AUTHORS: Pennica, D.
; AUTHORS: Goeddel, D.V.
; AUTHORS: Gray, P.W.
; TITLE: Human lymphotoxin and tumor necrosis factor genes: structure,
; TITLE: homology and chromosomal localization
; JOURNAL: Nucleic Acids Res.
; VOLUME: 13
; ISSUE: 17
; PAGES: 6361-6373
; DATE: 1985-09-11
; DATABASE ACCESSION NUMBER: X02910 Genbank
; DATABASE ENTRY DATE: 1997-02-17
; US-09-166-186-1

Query Match 100.0%; Score 43; DB 3; Length 3634;
Best Local Similarity 100.0%; Pred. No. 2.2e-08;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TCAAACTGGGGCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
Db 2812 TCAAACTGGGGCTCCAGAACTCACTGGGGCCTACAGCTTTGA 2854
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RESULT 9
US-09-313-932-1
; Sequence 1, Application US/09313932A
; Patent No. 6228642
; GENERAL INFORMATION:
; APPLICANT: Baker, Brenda
; APPLICANT: Bennett, C. Frank
; APPLICANT: Butler, Madeline M.
; APPLICANT: Shanahan, William R.
; TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDE MODULATION OF TNF-
; TITLE OF INVENTION: EXPRESSION
; FILE REFERENCE: ISPH-0356
; CURRENT APPLICATION NUMBER: US/09/313,932A
; CURRENT FILING DATE: 1999-05-18
; NUMBER OF SEQ ID NOS: 501
; SEQ ID NO 1
; LENGTH: 3634
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (796..981,1589..1634,1822..1869,2171..2592)
; FEATURE:
; NAME/KEY: exon
; LOCATION: (615)..(981)
; FEATURE:
; NAME/KEY: intron
; LOCATION: (982)..(1588)
; FEATURE:
; NAME/KEY: exon
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; LOCATION: (1589)..(1634)
; FEATURE:
; NAME/KEY: intron
; LOCATION: (1635)..(1821)
; FEATURE:
; NAME/KEY: exon
; LOCATION: (1822)..(1869)
; FEATURE:
; NAME/KEY: intron
; LOCATION: (1870)..(2070)
; FEATURE:
; NAME/KEY: exon
; LOCATION: (2171)..(3381)
; PUBLICATION INFORMATION:
; AUTHORS: Nedwin, G.E.
; AUTHORS: Naylor, S.L.
; AUTHORS: Sakaguchi, A.Y.
; AUTHORS: Smith, D.
; AUTHORS: Jarrett-Nedwin, J.
; AUTHORS: Pennica, D.
; AUTHORS: Goeddel, D.V.
; AUTHORS: Gray, P.W.
; TITLE: Human lymphotoxin and tumor necrosis factor genes:
; TITLE: structure, homology and chromosomal localization
; JOURNAL: Nucleic Acids Res.
; VOLUME: 13
; ISSUE: 17
; PAGES: 6361-6373
; DATE: 1985-09-11
; DATABASE ACCESSION NUMBER: X02910 Genbank
; DATABASE ENTRY DATE: 1997-02-17
; US-09-313-932-1

Query Match 100.0%; Score 43; DB 3; Length 3634;
Best Local Similarity 100.0%; Pred. No. 2.2e-08;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TCAAACTGGGGCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
Db 2812 TCAAACTGGGGCTCCAGAACTCACTGGGGCCTACAGCTTTGA 2854
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RESULT 10
US-09-109-663-34
; Sequence 34, Application US/09109663
; Patent No. 6277981
; GENERAL INFORMATION:
; APPLICANT: Tu, Guang-Chou
; APPLICANT: Israel, Yedy
; TITLE OF INVENTION: AN IMPROVED METHOD FOR DESIGN AND SELECTION OF
; TITLE OF INVENTION: EFFICACIOUS ANTISENSE OLIGONUCLEOTIDES
; FILE REFERENCE: 9855-3U1
; CURRENT APPLICATION NUMBER: US/09/109,663
; CURRENT FILING DATE: 1998-07-03
; EARLIER APPLICATION NUMBER: 60/051,705
; EARLIER FILING DATE: 1997-07-03
; NUMBER OF SEQ ID NOS: 81
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 34
; LENGTH: 3634
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: TNF(alpha) cDNA
; US-09-109-663-34

Query Match 100.0%; Score 43; DB 3; Length 3634;
Best Local Similarity 100.0%; Pred. No. 2.2e-08;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TCAAACTGGGGCTCCAGAACTCACTGGGGCCTACAGCTTTGA 43
Db 2812 TCAAACTGGGGCTCCAGAACTCACTGGGGCCTACAGCTTTGA 2854
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RESULT 11
US-09-148-545-72/c
; Sequence 72, Application US/09148545
; Patent No. 6590075
; GENERAL INFORMATION:
; APPLICANT: Rosen et al.
; TITLE OF INVENTION: 70 Human Secreted Proteins
; FILE REFERENCE: P2001P1
; CURRENT APPLICATION NUMBER: US/09/148,545
; CURRENT FILING DATE: 1998-09-04
; EARLIER APPLICATION NUMBER: PCT/US98/04482
; EARLIER FILING DATE: 1998-03-06
; EARLIER APPLICATION NUMBER: 60/040,162
; EARLIER FILING DATE: 1997-03-07
; EARLIER APPLICATION NUMBER: 60/040,333
; EARLIER FILING DATE: 1997-03-07
; EARLIER APPLICATION NUMBER: 60/038,621
; EARLIER FILING DATE: 1997-03-07
; EARLIER APPLICATION NUMBER: 60/040,161
; EARLIER FILING DATE: 1997-03-07
; EARLIER APPLICATION NUMBER: 60/040,626
; EARLIER FILING DATE: 1997-03-07
; EARLIER APPLICATION NUMBER: 60/040,334
; EARLIER FILING DATE: 1997-03-07
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Best Local Similarity 80.6%; Pred. No. 12;
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US-09-148-545-126/c
; Sequence 126, Application US/09148545
; Patent No. 6590075
; GENERAL INFORMATION:

; APPLICANT: Rosen et al.
; TITLE OF INVENTION: 70 Human Secreted Proteins
; FILE REFERENCE: P2001PI
; CURRENT APPLICATION NUMBER: US/09/148,545
; CURRENT FILING DATE: 1998-09-04
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US-09-740-027-3

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; Sequence 1, Application PC/TUS9512987
; GENERAL INFORMATION:
; APPLICANT: LAFEMINA, R.
; APPLICANT: SARDANA, V.
; APPLICANT: VELOSKI, C.
; TITLE OF INVENTION: STABLE RECOMBINANT HCMV PROTEASE
; NUMBER OF SEQUENCES: 9
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: ROY D. MEREDITH
; STREET: P.O. BOX 2000, 126 E. LINCOLN AVE.
; CITY: RAHWAY
; STATE: NEW JERSEY
; COUNTRY: USA
; ZIP: 07065-0907
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: PCT/US95/12987
; FILING DATE:
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: MEREDITH, ROY D.
; REGISTRATION NUMBER: 30,777
; REFERENCE/DOCKET NUMBER: 19262 PCT
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (908) 594-4678
; TELEFAX: (908) 594-4720
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 771 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: double
; TOPOLOGY: linear
; HYPOTHETICAL: NO
; ANTI-SENSE: NO
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; APPLICANT: LAFEMINA, R.

; APPLICANT: SARDANA, V.
; APPLICANT: VELOSKI, C.
; TITLE OF INVENTION: STABLE RECOMBINANT HCMV PROTEASE
; NUMBER OF SEQUENCES: 9
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: ROY D. MEREDITH
; STREET: P.O. BOX 2000, 126 E. LINCOLN AVE.
; CITY: RAHWAY
; STATE: NEW JERSEY
; COUNTRY: USA
; ZIP: 07065-0907
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; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: PCT/US95/12987
; FILING DATE:
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: MEREDITH, ROY D.
; REGISTRATION NUMBER: 30,777
; REFERENCE/DOCKET NUMBER: 19262 PCT
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (908) 594-4678
; TELEFAX: (908) 594-4720
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 771 base pairs
; TYPE: nucleic acid
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; TOPOLOGY: linear
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; ANTI-SENSE: NO
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Job time : 26.449 secs

GenCore version 5.1.6
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Listing first 45 summaries

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37	33	31.7	51	9	US-09-801-371A-10	Sequence 10, Appl
C 38	31.2	30.0	90043	13	US-10-087-192-1141	Sequence 1141, Ap
C 39	31	29.8	418550	16	US-10-292-798-1463	Sequence 1463, Ap
40	30.4	29.2	440	16	US-10-062-674-37	Sequence 37, Appl
41	30.2	29.0	45855	16	US-10-085-117-316	Sequence 316, App
C 42	29.6	28.5	2127	13	US-10-282-122A-33764	Sequence 33764, A
C 43	29.2	28.1	525	13	US-10-424-599-60620	Sequence 60620, A
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C 45	29.2	28.1	1287	13	US-10-424-599-2206	Sequence 2206, Ap

ALIGNMENTS

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RESULT 1
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; Sequence 1, Application US/09801371A
; Patent No. US20020155569A1
; GENERAL INFORMATION:
; APPLICANT: Kaempfer, Raymond
; APPLICANT: Osman, Farhat
; APPLICANT: Jarrous, Nayef
; APPLICANT: Ben-Asouli, Yitzhak
; TITLE OF INVENTION: REGULATION OF GENE EXPRESSION THROUGH
; TITLE OF INVENTION: MANIPULATION OF MRNA SPLICING AND ITS USES
; FILE REFERENCE: A34084-PT-USA-A 066031.0147
; CURRENT APPLICATION NUMBER: US/09/801,371A
; CURRENT FILING DATE: 2001-03-07
; PRIOR APPLICATION NUMBER: PCT WO 00/14255
; PRIOR FILING DATE: 1999-09-06
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 104
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-801-371A-1

```

Pred. No. is the number of results predicted by chance to have a

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RESULT 2
US-09-801-371A-5/c
; Sequence 5, Application US/09801371A
; Patent No. US20020155569A1
; GENERAL INFORMATION:
; APPLICANT: Kaempfer, Raymond
; APPLICANT: Osman, Farhat
; APPLICANT: Jarrous, Nayef
; APPLICANT: Ben-Asouli, Yitzhak
; TITLE OF INVENTION: REGULATION OF GENE EXPRESSION THROUGH
; TITLE OF INVENTION: MANIPULATION OF MENA SPLICING AND ITS USES
; FILE REFERENCE: A34084-PCT-USA-A 066031.0147
; CURRENT APPLICATION NUMBER: US/09/801,371A
; CURRENT FILING DATE: 2001-03-07
; PRIOR APPLICATION NUMBER: PCT WO 00/14255
; PRIOR FILING DATE: 1999-09-06
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 5
; LENGTH: 104
; TYPE: DNA
; ORGANISM: Homo sapien
US-09-801-371A-5

Query Match      100.0%; Score 104; DB 9; Length 104;
Best Local Similarity 100.0%; Pred. No. 7.2e-28;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 GAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 60
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      104 GAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 45

QY      61 GAATCTGGAGACCGAGGAGCCCTTTGGTTCTTGCCCGCAGAAATGCTGC 104
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      44 GAATCTGGAGACCGAGGAGCCCTTTGGTTCTTGCCCGCAGAAATGCTGC 1

RESULT 3
-US-10-356-308A-13
; Sequence 13, Application US/10356308A
; Publication No. US20040039186A1
; GENERAL INFORMATION:
; APPLICANT: Tataka, Revati J.
; APPLICANT: Marlin, Steven D.
; APPLICANT: Barton, Randall Wilber
; TITLE OF INVENTION: Self-Regulated Apoptosis of Inflammatory Cells by Gene Therapy
; FILE REFERENCE: 9/121-1-CIP1
; CURRENT APPLICATION NUMBER: US/10/356,308A
; CURRENT FILING DATE: 2003-01-31
; PRIOR APPLICATION NUMBER: US 09/032,297
; PRIOR FILING DATE: 1998-02-27
; PRIOR APPLICATION NUMBER: US 60/039,266
; PRIOR FILING DATE: 1997-02-28
; NUMBER OF SEQ ID NOS: 13
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 13
; LENGTH: 787
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; LOCATION: 1 to 787
; OTHER INFORMATION: TNFa 3' untranslated region
; PUBLICATION INFORMATION:
; AUTHORS: Nedwin, G.E., et al.
; JOURNAL: Nucleic Acid Research
; VOLUME: 13
; PAGES: 6361-6373
; DATE: 1985
US-10-356-308A-13

Query Match      100.0%; Score 104; DB 13; Length 787;
Best Local Similarity 100.0%; Pred. No. 1e-27;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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QY      1 GAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 60
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      222 GAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 281

QY      61 GAATCTGGAGACCGAGGAGCCCTTTGGTTCTTGCCCGCAGAAATGCTGC 104
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      282 GAATCTGGAGACCGAGGAGCCCTTTGGTTCTTGCCCGCAGAAATGCTGC 325

RESULT 4
US-10-342-887-501
; Sequence 501, Application US/10342887
; Publication No. US20040058340A1
; GENERAL INFORMATION:
; APPLICANT: Dai, Hongyue
; APPLICANT: He, Yudong
; APPLICANT: Linsley, Peter S.
; APPLICANT: Mao, Mao
; APPLICANT: Roberts, Christopher J.
; APPLICANT: Van 't Veer, Laura Johanna
; APPLICANT: Van de Vijver, Marc J.
; APPLICANT: Bernards, Rene
; TITLE OF INVENTION: Diagnosis and Prognosis of Breast Cancer Patients
; FILE REFERENCE: 9301-188-999
; CURRENT APPLICATION NUMBER: US/10/342,887
; CURRENT FILING DATE: 2003-01-15
; PRIOR APPLICATION NUMBER: 60/298,918
; PRIOR FILING DATE: 2001-06-18
; PRIOR APPLICATION NUMBER: 60/380,710
; PRIOR FILING DATE: 2002-05-14
; PRIOR APPLICATION NUMBER: 10/172,118
; PRIOR FILING DATE: 2002-06-14
; NUMBER OF SEQ ID NOS: 2699
; SEQ ID NO 501
; LENGTH: 1585
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-342-887-501

Query Match      100.0%; Score 104; DB 13; Length 1585;
Best Local Similarity 100.0%; Pred. No. 1.1e-27;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 GAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 60
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      1003 GAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 1062

QY      61 GAATCTGGAGACCGAGGAGCCCTTTGGTTCTTGCCCGCAGAAATGCTGC 104
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      1063 GAATCTGGAGACCGAGGAGCCCTTTGGTTCTTGCCCGCAGAAATGCTGC 1106

RESULT 5
US-10-172-118-501
; Sequence 501, Application US/10172118
; Publication No. US20030224374A1
; GENERAL INFORMATION:
; APPLICANT: Dai, Hongyue
; APPLICANT: He, Yudong
; APPLICANT: Linsley, Peter
; APPLICANT: Mao, Mao
; APPLICANT: Roberts, Chris
; APPLICANT: Van 't Veer, Laura
; APPLICANT: Van de Vijver, Marc
; APPLICANT: Bernards, Rene
; TITLE OF INVENTION: Diagnosis and Prognosis of Breast Cancer Patients
; FILE REFERENCE: 9301-175-999
; CURRENT APPLICATION NUMBER: US/10/172,118
; CURRENT FILING DATE: 2002-06-14
; PRIOR APPLICATION NUMBER: 60/380,770
; PRIOR FILING DATE: 2002-05-14
; NUMBER OF SEQ ID NOS: 2699
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; SEQ ID NO 501
; LENGTH: 1585
; TYPE: DNA
; ORGANISM: Homo sapiens
; PUBLICATION INFORMATION:
; DATABASE ACCESSION NUMBER: NM 000594
; DATABASE ENTRY DATE: 2001-06-18
US-10-172-118-501

Query Match      100.0%; Score 104; DB 13; Length 1585;
Best Local Similarity 100.0%; Pred. No. 1.1e-27;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 GAATTCAAACCTGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 60
Db      1003 GAATTCAAACCTGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 1062

QY      61 GAATCTGGAGACCAGGAGCCTTTGGTTCTTGCCAGAAATGCTGC 104
Db      1063 GAATCTGGAGACCAGGAGCCTTTGGTTCTTGCCAGAAATGCTGC 1106

RESULT 6
US-10-641-643-1329
; Sequence 1329, Application US/10641643
; Publication No. US20040077003A1
; GENERAL INFORMATION:
; APPLICANT: Cocks, Benjamin G.
;           Susan G. Stuart
;           Jeffrey J. Seilhamer
; TITLE OF INVENTION: COMPOSITION FOR THE DETECTION OF BLOOD CELL
; GENE EXPRESSION
; NUMBER OF SEQUENCES: 1508
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: INCYTE PHARMACEUTICALS, INC.
; STREET: 3174 PORTER DRIVE
; CITY: PALO ALTO
; STATE: CALIFORNIA
; COUNTRY: USA
; ZIP: 94304
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/641.643
; FILING DATE: 14-Aug-2003
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: <Unknown>
; FILING DATE: <Unknown>
; ATTORNEY/AGENT INFORMATION:
; NAME: Zeller, Karen J.
; REGISTRATION NUMBER: 37,071
; REFERENCE/DOCKET NUMBER: PA-0001 US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (650) 855-0555
; TELEFAX: (650) 845-4166
; INFORMATION FOR SEQ ID NO: 1329:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1585 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; IMMEDIATE SOURCE:
; LIBRARY: GENBANK
; CLONE: g339737
; SEQUENCE DESCRIPTION: SEQ ID NO: 1329 :
US-10-641-643-1329

Query Match      100.0%; Score 104; DB 17; Length 1585;
Best Local Similarity 100.0%; Pred. No. 1.1e-27;
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Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 GAATTCAAACCTGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 60
Db      1003 GAATTCAAACCTGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 1062

QY      61 GAATCTGGAGACCAGGAGCCTTTGGTTCTTGCCAGAAATGCTGC 104
Db      1063 GAATCTGGAGACCAGGAGCCTTTGGTTCTTGCCAGAAATGCTGC 1106

RESULT 7
US-10-342-887-1901
; Sequence 1901, Application US/10342887
; Publication No. US20040058340A1
; GENERAL INFORMATION:
; APPLICANT: Dai, Hongyue
; APPLICANT: He, Yudong
; APPLICANT: Linsley, Peter S.
; APPLICANT: Mao, Mao
; APPLICANT: Roberts, Christopher J.
; APPLICANT: Van 't Veer, Laura Johanna
; APPLICANT: Van de Vijver, Marc J.
; APPLICANT: Bernards, Rene
; TITLE OF INVENTION: Diagnosis and Prognosis of Breast Cancer Patients
; FILE REFERENCE: 9301-188-999
; CURRENT APPLICATION NUMBER: US/10/342,887
; CURRENT FILING DATE: 2003-01-15
; PRIOR APPLICATION NUMBER: 60/298,918
; PRIOR FILING DATE: 2001-06-18
; PRIOR APPLICATION NUMBER: 60/380,710
; PRIOR FILING DATE: 2002-05-14
; PRIOR APPLICATION NUMBER: 10/172,118
; PRIOR FILING DATE: 2002-06-14
; NUMBER OF SEQ ID NOS: 2699
; SEQ ID NO 1901
; LENGTH: 1643
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-342-887-1901

Query Match      100.0%; Score 104; DB 13; Length 1643;
Best Local Similarity 100.0%; Pred. No. 1.1e-27;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 GAATTCAAACCTGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 60
Db      1070 GAATTCAAACCTGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 1129

QY      61 GAATCTGGAGACCAGGAGCCTTTGGTTCTTGCCAGAAATGCTGC 104
Db      1130 GAATCTGGAGACCAGGAGCCTTTGGTTCTTGCCAGAAATGCTGC 1173

RESULT 8
US-10-172-118-1901
; Sequence 1901, Application US/10172118
; Publication No. US20030224374A1
; GENERAL INFORMATION:
; APPLICANT: Dai, Hongyue
; APPLICANT: He, Yudong
; APPLICANT: Linsley, Peter
; APPLICANT: Mao, Mao
; APPLICANT: Roberts, Chris
; APPLICANT: Van 't Veer, Laura
; APPLICANT: Van de Vijver, Marc
; APPLICANT: Bernards, Rene
; TITLE OF INVENTION: Diagnosis and Prognosis of Breast Cancer Patients
; FILE REFERENCE: 9301-175-999
; CURRENT APPLICATION NUMBER: US/10/172,118
; CURRENT FILING DATE: 2002-06-14
; PRIOR APPLICATION NUMBER: 60/380,770
; PRIOR FILING DATE: 2002-05-14
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; NUMBER OF SEQ ID NOS: 2699
; SEQ ID NO 1901
; LENGTH: 1643
; TYPE: DNA
; ORGANISM: Homo sapiens
; PUBLICATION INFORMATION:
; DATABASE ACCESSION NUMBER: X01394
; DATABASE ENTRY DATE: 2001-06-18
US-10-172-118-1901

Query Match      100.0%; Score 104; DB 13; Length 1643;
Best Local Similarity 100.0%; Pred. No. 1.1e-27;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 GAATTCAAACCTGGGGCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 60
Db      1070 GAATTCAAACCTGGGGCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 1129

QY      61 GAATCTGGAGACCCAGGAGCCTTTGGTTCTTGCCCAAGATGCTGC 104
Db      1130 GAATCTGGAGACCCAGGAGCCTTTGGTTCTTGCCCAAGATGCTGC 1173

RESULT 9
US-10-272-411-4
; Sequence 4, Application US/10272411
; Publication No. US20030100068A1
; GENERAL INFORMATION:
; APPLICANT: Barnes Jewish Hospital
; APPLICANT: Lam, Jonathan
; APPLICANT: Ross, F. Patrick
; APPLICANT: Teitelbaum, Steven
; TITLE OF INVENTION: RANKL MIMICS AND USES THEREOF
; FILE REFERENCE: 60019620-0202
; CURRENT APPLICATION NUMBER: US/10/272,411
; CURRENT FILING DATE: 2002-10-15
; PRIOR APPLICATION NUMBER: 60/329,393
; PRIOR FILING DATE: 2001-10-15
; NUMBER OF SEQ ID NOS: 52
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 4
; LENGTH: 1643
; TYPE: DNA
; ORGANISM: Homo sapiens
; PUBLICATION INFORMATION:
; DATABASE ACCESSION NUMBER: NCBI/ X01394.1
; DATABASE ENTRY DATE: 1995-03-21
; RELEVANT RESIDUES: (1)..(1643)
; PUBLICATION INFORMATION:
; DATABASE ACCESSION NUMBER: NCBI/ BC028148.1
; DATABASE ENTRY DATE: 2002-05-01
; RELEVANT RESIDUES: (1)..(1643)
; PUBLICATION INFORMATION:
; DATABASE ACCESSION NUMBER: NCBI/ M35592.1
; DATABASE ENTRY DATE: 1993-04-27
; RELEVANT RESIDUES: (1)..(1643)
; PUBLICATION INFORMATION:
; DATABASE ACCESSION NUMBER: NCBI/ XM_165823.1
; DATABASE ENTRY DATE: 2002-08-01
; RELEVANT RESIDUES: (1)..(1643)
US-10-272-411-4

Query Match      100.0%; Score 104; DB 15; Length 1643;
Best Local Similarity 100.0%; Pred. No. 1.1e-27;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 GAATTCAAACCTGGGGCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 60
Db      1070 GAATTCAAACCTGGGGCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 1129

QY      61 GAATCTGGAGACCCAGGAGCCTTTGGTTCTTGCCCAAGATGCTGC 104
Db      1130 GAATCTGGAGACCCAGGAGCCTTTGGTTCTTGCCCAAGATGCTGC 1173
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RESULT 10
US-10-218-547-3
; Sequence 3, Application US/10218547
; Publication No. US20030100074A1
; GENERAL INFORMATION:
; APPLICANT: Human Genome Sciences, Inc.
; TITLE OF INVENTION: Methods And Compositions For Treating Metabolic Bone Diseases R
; TITLE OF INVENTION: Human Endokine Alpha
; FILE REFERENCE: PF561
; CURRENT APPLICATION NUMBER: US/10/218,547
; CURRENT FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: 60/312,542
; PRIOR FILING DATE: 2001-08-16
; PRIOR APPLICATION NUMBER: 60/330,761
; PRIOR FILING DATE: 2001-10-30
; NUMBER OF SEQ ID NOS: 57
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 3
; LENGTH: 1643
; TYPE: DNA
; ORGANISM: human
US-10-218-547-3
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Query Match      100.0%; Score 104; DB 15; Length 1643;
Best Local Similarity 100.0%; Pred. No. 1.1e-27;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 GAATTCAAACCTGGGGCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 60
Db      1070 GAATTCAAACCTGGGGCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 1129

QY      61 GAATCTGGAGACCCAGGAGCCTTTGGTTCTTGCCCAAGATGCTGC 104
Db      1130 GAATCTGGAGACCCAGGAGCCTTTGGTTCTTGCCCAAGATGCTGC 1173
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RESULT 11
US-10-272-328A-4
; Sequence 4, Application US/10272328A
; Publication No. US20030109444A1
; GENERAL INFORMATION:
; APPLICANT: Barnes Jewish Hospital
; APPLICANT: Lam, Jonathan
; APPLICANT: Ross, F. Patrick
; APPLICANT: Teitelbaum, Steven
; TITLE OF INVENTION: RANKL MIMICS AND USES THEREOF
; FILE REFERENCE: 60019620-0206
; CURRENT APPLICATION NUMBER: US/10/272,328A
; CURRENT FILING DATE: 2003-01-24
; PRIOR APPLICATION NUMBER: 60/329,393
; PRIOR FILING DATE: 2001-10-15
; NUMBER OF SEQ ID NOS: 51
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 4
; LENGTH: 1643
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-272-328A-4
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```
Query Match      100.0%; Score 104; DB 15; Length 1643;
Best Local Similarity 100.0%; Pred. No. 1.1e-27;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 GAATTCAAACCTGGGGCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 60
Db      1070 GAATTCAAACCTGGGGCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 1129

QY      61 GAATCTGGAGACCCAGGAGCCTTTGGTTCTTGCCCAAGATGCTGC 104
Db      1130 GAATCTGGAGACCCAGGAGCCTTTGGTTCTTGCCCAAGATGCTGC 1173
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```
RESULT 12
US-10-310-793-9
; Sequence 9, Application US/10310793
; Publication No. US20030198640A1
; GENERAL INFORMATION:
; APPLICANT: Yu, Guo-Liang
; APPLICANT: Ni, Jian
; APPLICANT: Rosen, Craig A
; APPLICANT: Zhang, Jun
; APPLICANT: Wei, Ping
; TITLE OF INVENTION: Methods And Compositions For Treating Inflammatory Bowel Diseases
; TITLE OF INVENTION: Relating To Human Tumor Necrosis Factor-Gamma Beta
; FILE REFERENCE: PF573
; CURRENT APPLICATION NUMBER: US/10/310,793
; CURRENT FILING DATE: 2002-12-06
; PRIOR APPLICATION NUMBER: 60/336,695
; PRIOR FILING DATE: 2001-12-07
; PRIOR APPLICATION NUMBER: 10/226,294
; PRIOR FILING DATE: 2002-08-23
; PRIOR APPLICATION NUMBER: 60/314,381
; PRIOR FILING DATE: 2001-08-24
; PRIOR APPLICATION NUMBER: 09/899,059
; PRIOR FILING DATE: 2001-07-06
; PRIOR APPLICATION NUMBER: 60/278,449
; PRIOR FILING DATE: 2001-03-26
; PRIOR APPLICATION NUMBER: 60/216,879
; PRIOR FILING DATE: 2000-07-07
; PRIOR APPLICATION NUMBER: 09/559,290
; PRIOR FILING DATE: 2000-04-27
; PRIOR APPLICATION NUMBER: 60/180,908
; PRIOR FILING DATE: 2000-02-08
; PRIOR APPLICATION NUMBER: 60/134,067
; PRIOR FILING DATE: 1999-05-13
; PRIOR APPLICATION NUMBER: 60/132,227
; PRIOR FILING DATE: 1999-05-03
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 71
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 9
; LENGTH: 1643
; TYPE: DNA
; ORGANISM: human
US-10-310-793-9

Query Match          100.0%; Score 104; DB 15; Length 1643;
Best Local Similarity 100.0%; Pred. No. 1.1e-27;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 GAATTCAAACCTGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 60
      |||
Db      1070 GAATTCAAACCTGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 1129

QY      61 GAATCTGGAGACCGAGCGCCTTTGGTTCTGGCCAGAAATGCTGC 104
      |||
Db      1130 GAATCTGGAGACCGAGCGCCTTTGGTTCTGGCCAGAAATGCTGC 1173

RESULT 13
US-10-247-671-68
; Sequence 68, Application US/10247671
; Publication No. US20030194721A1
; GENERAL INFORMATION:
; APPLICANT: Mikita, Thomas
; APPLICANT: Shiffman, Dev
; APPLICANT: Porter, Gordon, J.
; APPLICANT: Kaser, Matthew R.
; TITLE OF INVENTION: GENES EXPRESSED IN TREATED FOAM CELLS
; FILE REFERENCE: PA-0050 US
; CURRENT APPLICATION NUMBER: US/10/247,671
; CURRENT FILING DATE: 2002-09-18
; PRIOR APPLICATION NUMBER: 60/323,784
; PRIOR FILING DATE: 2001-09-19
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; NUMBER OF SEQ ID NOS: 186
; SOFTWARE: PERL Program
; SEQ ID NO 68
; LENGTH: 1666
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: misc feature
; OTHER INFORMATION: Incyte ID No. US20030194721A1 223092.1
; FEATURE:
; NAME/KEY: unsure
; LOCATION: 1347, 1358
; OTHER INFORMATION: a, t, c, g, or other
US-10-247-671-68

Query Match          100.0%; Score 104; DB 15; Length 1666;
Best Local Similarity 100.0%; Pred. No. 1.1e-27;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 GAATTCAAACCTGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 60
      |||
Db      1085 GAATTCAAACCTGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 1144

QY      61 GAATCTGGAGACCGAGCGCCTTTGGTTCTGGCCAGAAATGCTGC 104
      |||
Db      1145 GAATCTGGAGACCGAGCGCCTTTGGTTCTGGCCAGAAATGCTGC 1188

RESULT 14
US-09-973-850-1
; Sequence 1, Application US/09973850
; Publication No. US20020086016A1
; GENERAL INFORMATION:
; APPLICANT: Wunderink, Richard
; APPLICANT: Waterer, Grant
; TITLE OF INVENTION: Method for Identifying Increased Risk of Death from Community Ac
; TITLE OF INVENTION: Pneumonia
; FILE REFERENCE: GCI-0017
; CURRENT APPLICATION NUMBER: US/09/973,850
; CURRENT FILING DATE: 2001-10-10
; PRIOR APPLICATION NUMBER: US 60/239,133
; PRIOR FILING DATE: 2000-10-10
; NUMBER OF SEQ ID NOS: 3
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1
; LENGTH: 2088
; TYPE: DNA
; ORGANISM: Homo sapien
US-09-973-850-1

Query Match          100.0%; Score 104; DB 13; Length 2088;
Best Local Similarity 100.0%; Pred. No. 1.2e-27;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 GAATTCAAACCTGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 60
      |||
Db      1506 GAATTCAAACCTGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 1565

QY      61 GAATCTGGAGACCGAGCGCCTTTGGTTCTGGCCAGAAATGCTGC 104
      |||
Db      1566 GAATCTGGAGACCGAGCGCCTTTGGTTCTGGCCAGAAATGCTGC 1609

RESULT 15
US-09-973-850-2
; Sequence 2, Application US/09973850
; Publication No. US20020086016A1
; GENERAL INFORMATION:
; APPLICANT: Wunderink, Richard
; APPLICANT: Waterer, Grant
; TITLE OF INVENTION: Method for Identifying Increased Risk of Death from Community Ac
; TITLE OF INVENTION: Pneumonia
; FILE REFERENCE: GCI-0017
```

```

; CURRENT APPLICATION NUMBER: US/09/973,850
; CURRENT FILING DATE: 2001-10-10
; PRIOR APPLICATION NUMBER: US 60/239,133
; PRIOR FILING DATE: 2000-10-10
; NUMBER OF SEQ ID NOS: 3
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
; LENGTH: 2088
; TYPE: DNA
; ORGANISM: Homo sapien
US-09-973-850-2

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Query Match	100.0%;	Score 104;	DB 13;	Length 2088;
Best Local Similarity	100.0%;	Pred. No. 1.2e-27;		
Matches 104;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0;

Qy	1	GAATTCAAAC	TGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG	60
Db	1506	GAATTCAAAC	TGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG	1565
Qy	61	GAATCTGGAGAC	CAGGAGCCTTTGGTTCTGGCCAGAAATGCTGC	104
Db	1566	GAATCTGGAGAC	CAGGAGCCTTTGGTTCTGGCCAGAAATGCTGC	1609

Search completed: September 13, 2004, 16:11:24
Job time : 389.578 secs

GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: September 13, 2004, 02:02:56 ; Search time 61.551 Seconds
(without alignments)
937.676 Million cell updates/sec

Title: US-09-801-371A-1
Perfect score: 104
Sequence: 1 gaattcaaacgtgggcctcc.....ggttctggccagaatgctgc 104

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 682709 seqs, 277475446 residues

Total number of hits satisfying chosen parameters: 1365418

Minimum DB seq length: 0
Maximum DB seq length: 20000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued Patents NA:*
1: /cgn2_6/ptodata/2/ina/5A_COMB.seq:*
2: /cgn2_6/ptodata/2/ina/5B_COMB.seq:*
3: /cgn2_6/ptodata/2/ina/6A_COMB.seq:*
4: /cgn2_6/ptodata/2/ina/6B_COMB.seq:*
5: /cgn2_6/ptodata/2/ina/PCTUS_COMB.seq:*
6: /cgn2_6/ptodata/2/ina/backfiles1.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query %			DB ID	Description
		Match	Length	DB		
1	104	100.0	787	4	US-09-032-297A-13	Sequence 13, Appl
2	104	100.0	787	4	US-09-229-151C-7	Sequence 7, Appl
3	104	100.0	1585	4	US-09-023-655-1329	Sequence 1329, Ap
4	104	100.0	1643	3	US-08-880-342-36	Sequence 36, Appl
5	104	100.0	1643	4	US-09-505-250-4	Sequence 4, Appl
6	104	100.0	2270	4	US-09-229-151C-13	Sequence 13, Appl
7	104	100.0	2570	4	US-09-229-151C-14	Sequence 14, Appl
8	104	100.0	3634	3	US-09-166-186-1	Sequence 1, Appl
9	104	100.0	3634	3	US-09-313-932-1	Sequence 1, Appl
10	104	100.0	3634	3	US-09-109-663-34	Sequence 34, Appl
C 11	32.6	31.3	2623	4	US-09-976-594-142	Sequence 142, App
C 12	28	26.9	28720	4	US-09-341-587-7	Sequence 7, Appl
13	27.4	26.3	116592	4	US-09-818-512-3	Sequence 3, Appl
14	27.2	26.2	412	4	US-09-621-976-19072	Sequence 19072, A
15	26.4	25.4	3170	4	US-09-169-768-1	Sequence 1, Appl
16	26.4	25.4	3171	4	US-09-169-768-15	Sequence 15, Appl
17	26.4	25.4	3181	1	US-08-655-086-1	Sequence 1, Appl
18	26.4	25.4	3349	4	US-09-169-768-13	Sequence 13, Appl
19	26.4	25.4	3531	4	US-09-169-768-7	Sequence 7, Appl
20	26.4	25.4	3541	4	US-09-169-768-9	Sequence 9, Appl
21	26.4	25.4	4409	4	US-09-331-347C-22	Sequence 22, Appl
C 22	25.8	24.8	3889	4	US-09-484-970B-39	Sequence 39, Appl
23	25.8	24.8	4031	1	US-08-159-784-1	Sequence 1, Appl
C 24	25.6	24.6	642	3	US-09-328-111-82	Sequence 82, Appl
C 25	25.6	24.6	1923	4	US-09-620-312D-1004	Sequence 1004, Ap
C 26	25.6	24.6	2634	3	US-08-911-853-30	Sequence 30, Appl
C 27	25.6	24.6	2634	3	US-09-479-409-30	Sequence 30, Appl

C 28	25.6	24.6	2634	4	US-09-479-453-30	Sequence 30, Appl
C 29	25.6	24.6	17612	3	US-08-911-853-29	Sequence 29, Appl
C 30	25.6	24.6	17612	3	US-09-479-409-29	Sequence 29, Appl
C 31	25.6	24.6	17612	4	US-09-479-453-29	Sequence 29, Appl
32	25.4	24.4	220	3	US-09-263-933-22	Sequence 22, Appl
33	25.4	24.4	220	4	US-09-919-901-22	Sequence 22, Appl
34	25.4	24.4	604	3	US-09-068-880-1	Sequence 1, Appl
35	25.4	24.4	1026	3	US-09-068-880-14	Sequence 14, Appl
36	25.4	24.4	1289	4	US-09-247-155-138	Sequence 138, App
37	25.4	24.4	1467	3	US-09-330-317B-17	Sequence 17, Appl
38	25.4	24.4	1467	4	US-09-808-589A-17	Sequence 17, Appl
39	25.4	24.4	1956	3	US-08-867-352-20	Sequence 20, Appl
40	25.4	24.4	4145	1	US-08-314-917-1	Sequence 1, Appl
41	25.4	24.4	4145	1	US-08-265-046-1	Sequence 1, Appl
42	25.4	24.4	4145	2	US-08-465-522-1	Sequence 1, Appl
43	25.4	24.4	4145	5	PCT-US93-11401-1	Sequence 1, Appl
44	25.4	24.4	4145	5	PCT-US95-07849-1	Sequence 1, Appl
45	25.4	24.4	4951	2	US-08-752-307B-1	Sequence 1, Appl

ALIGNMENTS

RESULT 1
US-09-032-297A-13
; Sequence 13, Application US/090322297A
; Patent No. 6525184
; GENERAL INFORMATION:
; APPLICANT: Revati J. Tatake, Steven D. Marlin and
; Randall W. Barton
; TITLE OF INVENTION: Self-Regulated Apoptosis of
; Inflammatory Cells by Gene Therapy
; NUMBER OF SEQUENCES: 13
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Boehringer Ingelheim Corporation
; STREET: 900 Ridgebury Road, P.O. Box 368
; CITY: Ridgefield
; STATE: Connecticut
; COUNTRY: United States of America
; ZIP: 06877-0368
; COMPUTER READABLE FORM:
; MEDIUM TYPE: 3.5" 1.44 Mb diskette
; COMPUTER: IBM PC
; OPERATING SYSTEM: MS DOS
; SOFTWARE: Word Processing
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/032,297A
; FILING DATE: 27-Feb-1998
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 60/038,266
; FILING DATE: 28-FEB-97
; ATTORNEY/AGENT INFORMATION:
; NAME: Robert P. Raymond
; REGISTRATION NUMBER: 25089
; REFERENCE/DOCKET NUMBER: 9/121PCT
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 203-791-6183
; INFORMATION FOR SEQ ID NO: 13:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 787
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: <Unknown>
; DESCRIPTION: DNA
; FEATURE:
; NAME/KEY: TNFa 3' untranslated region
; SEQUENCE DESCRIPTION: SEQ ID NO: 13:
US-09-032-297A-13

Query Match 100.0%; Score 104; DB 4; Length 787;
Best Local Similarity 100.0%; Pred. No. 2.4e-27;

Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 GAATTCAAAGCTGGGGCTCCAGAACTCACTGGGGCTACAGCTTTGATCCCTGACATCTG 60
Db 222 GAATTCAAAGCTGGGGCTCCAGAACTCACTGGGGCTACAGCTTTGATCCCTGACATCTG 281

QY 61 GAATCTGGAGACCCAGGAGCCTTTGGTTCTGCGCCAGAAATGCTGC 104
Db 282 GAATCTGGAGACCCAGGAGCCTTTGGTTCTGCGCCAGAAATGCTGC 325

RESULT 2
US-09-229-151C-7
; Sequence 7, Application US/09229151C
; Patent No. 6537784
; GENERAL INFORMATION:
; APPLICANT: Tatake, Revati J.
; APPLICANT: Marlin, Steven D.
; APPLICANT: Barton, Randall W.
; TITLE OF INVENTION: Self-Regulated Apoptosis of Inflammatory Cells by Gene Therapy
; FILE REFERENCE: 9/137
; CURRENT APPLICATION NUMBER: US/09/229,151C
; PRIOR FILING DATE: 1999-01-12
; PRIOR APPLICATION NUMBER: US 60/076,316
; PRIOR FILING DATE: 1998-02-27
; NUMBER OF SEQ ID NOS: 15
; SOFTWARE: PatentIn version 2.0
; SEQ ID NO 7
; LENGTH: 787
; TYPE: DNA
; ORGANISM: Human
; FEATURE:
; OTHER INFORMATION: TNF-alpha untranslated region
; US-09-229-151C-7

Query Match 100.0%; Score 104; DB 4; Length 787;
Best Local Similarity 100.0%; Pred. No. 2.4e-27;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 GAATTCAAAGCTGGGGCTCCAGAACTCACTGGGGCTACAGCTTTGATCCCTGACATCTG 60
Db 222 GAATTCAAAGCTGGGGCTCCAGAACTCACTGGGGCTACAGCTTTGATCCCTGACATCTG 281

QY 61 GAATCTGGAGACCCAGGAGCCTTTGGTTCTGCGCCAGAAATGCTGC 104
Db 282 GAATCTGGAGACCCAGGAGCCTTTGGTTCTGCGCCAGAAATGCTGC 325

RESULT 3
US-09-023-655-1329
; Sequence 1329, Application US/09023655
; Patent No. 6607879
; GENERAL INFORMATION:
; APPLICANT: Cocks, Benjamin G.
; APPLICANT: Susan G. Stuart
; APPLICANT: Jeffrey J. Seilhamer
; TITLE OF INVENTION: COMPOSITION FOR THE DETECTION OF BLOOD CELL GENE
; TITLE OF INVENTION: EXPRESSION
; NUMBER OF SEQUENCES: 1508
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: INCYTE PHARMACEUTICALS, INC.
; STREET: 3174 PORTER DRIVE
; CITY: PALO ALTO
; STATE: CALIFORNIA
; COUNTRY: USA
; ZIP: 94304
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/023,655

FILING DATE: HERewith
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Zeller, Karen J.
REGISTRATION NUMBER: 37,071
REFERENCE/DOCKET NUMBER: PA-0001 US
TELECOMMUNICATION INFORMATION:
TELEPHONE: (650) 855-0555
TELEFAX: (650) 845-4166
INFORMATION FOR SEQ ID NO: 1329:
SEQUENCE CHARACTERISTICS:
LENGTH: 1585 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
IMMEDIATE SOURCE:
LIBRARY: GENBANK
CLONE: g339737
US-09-023-655-1329

Query Match 100.0%; Score 104; DB 4; Length 1585;
Best Local Similarity 100.0%; Pred. No. 3e-27;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 GAATTCAAAGCTGGGGCTCCAGAACTCACTGGGGCTACAGCTTTGATCCCTGACATCTG 60
Db 1003 GAATTCAAAGCTGGGGCTCCAGAACTCACTGGGGCTACAGCTTTGATCCCTGACATCTG 1062

QY 61 GAATCTGGAGACCCAGGAGCCTTTGGTTCTGCGCCAGAAATGCTGC 104
Db 1063 GAATCTGGAGACCCAGGAGCCTTTGGTTCTGCGCCAGAAATGCTGC 1106

RESULT 4
US-08-880-342-36
; Sequence 36, Application US/08880342
; Patent No. 6218179
; GENERAL INFORMATION:
; APPLICANT: Webster, Keith A.
; APPLICANT: Bishopric, Nanette H.
; APPLICANT: Murphy, Brian
; APPLICANT: Laderoute, Keith R.
; APPLICANT: Green, Christopher J.
; TITLE OF INVENTION: Tissue Specific Hypoxia Regulated
; TITLE OF INVENTION: Therapeutic Constructs
; NUMBER OF SEQUENCES: 37
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Dehlinger & Associates
; STREET: 350 Cambridge Avenue, Suite 250
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94306
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/880,342
; FILING DATE: 23-JUN-1997
; CLASSIFICATION: 514
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: PCT/IB95/00996
; FILING DATE: 13-NOV-1995
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/365,486
; FILING DATE: 23-DEC-1994
; ATTORNEY/AGENT INFORMATION:

NAME: Sholtz, Charles K.
REGISTRATION NUMBER: 38,615
REFERENCE/DOCKET NUMBER: 8255-0018.30
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 324-0880
TELEFAX: (415) 324-0960
INFORMATION FOR SEQ ID NO: 36:
SEQUENCE CHARACTERISTICS:
LENGTH: 1643 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: unknown
MOLECULE TYPE: DNA (genomic)
HYPOTHETICAL: NO
ANTI-SENSE: NO
ORIGINAL SOURCE:
INDIVIDUAL ISOLATE: TNF cDNA HSTNFR (EMBL Accession
INDIVIDUAL ISOLATE: #X01394)
FEATURE:
NAME/KEY: CDS
LOCATION: 153..851
US-08-880-342-36

Query Match 100.0%; Score 104; DB 3; Length 1643;
Best Local Similarity 100.0%; Pred. No. 3.1e-27;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 GAATTCAAACCTGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 60
Db 1070 GAATTCAAACCTGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 1129
QY 61 GAATCTGGAGACCAGGAGCCCTTTGGTTCTGGCCAGAAATGCTGC 104
Db 1130 GAATCTGGAGACCAGGAGCCCTTTGGTTCTGGCCAGAAATGCTGC 1173

RESULT 5

US-09-505-250-4
Sequence 4, Application US/09505250A
Patent No. 6329148
GENERAL INFORMATION:
APPLICANT: Rosen, Glenn
APPLICANT: Kao, Peter
TITLE OF INVENTION: Synergistic Anti-Cancer Therapy with
Triptolides and Death Domain Ligands
FILE REFERENCE: SUN-109PRV2
CURRENT APPLICATION NUMBER: US/09/505,250A
CURRENT FILING DATE: 2000-02-15
NUMBER OF SEQ ID NOS: 4
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 4
LENGTH: 1643
TYPE: DNA
ORGANISM: H. sapiens
FEATURE:
NAME/KEY: CDS
LOCATION: (153)...(854)
US-09-505-250-4

Query Match 100.0%; Score 104; DB 4; Length 1643;
Best Local Similarity 100.0%; Pred. No. 3.1e-27;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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Db 1070 GAATTCAAACCTGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 1129
QY 61 GAATCTGGAGACCAGGAGCCCTTTGGTTCTGGCCAGAAATGCTGC 104
Db 1130 GAATCTGGAGACCAGGAGCCCTTTGGTTCTGGCCAGAAATGCTGC 1173

RESULT 6

US-09-229-151C-13
Sequence 13, Application US/09229151C
Patent No. 6537784
GENERAL INFORMATION:
APPLICANT: Tatake, Revati J.
APPLICANT: Marlin, Steven D.
APPLICANT: Barton, Randall W.
TITLE OF INVENTION: Self-Regulated Apoptosis of Inflammatory Cells by Gene Therapy
FILE REFERENCE: 9/137
CURRENT APPLICATION NUMBER: US/09/229,151C
CURRENT FILING DATE: 1999-01-12
PRIOR APPLICATION NUMBER: US 60/076,316
PRIOR FILING DATE: 1998-02-27
NUMBER OF SEQ ID NOS: 15
SOFTWARE: PatentIn version 2.0
SEQ ID NO 13
LENGTH: 2270
TYPE: DNA
ORGANISM: Human
FEATURE:
OTHER INFORMATION: chimeric gene : -706TNNFpGB3'UTR
US-09-229-151C-13

Query Match 100.0%; Score 104; DB 4; Length 2270;
Best Local Similarity 100.0%; Pred. No. 3.4e-27;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 GAATTCAAACCTGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 60
Db 1705 GAATTCAAACCTGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 1764
QY 61 GAATCTGGAGACCAGGAGCCCTTTGGTTCTGGCCAGAAATGCTGC 104
Db 1765 GAATCTGGAGACCAGGAGCCCTTTGGTTCTGGCCAGAAATGCTGC 1808

RESULT 7

US-09-229-151C-14
Sequence 14, Application US/09229151C
Patent No. 6537784
GENERAL INFORMATION:
APPLICANT: Tatake, Revati J.
APPLICANT: Marlin, Steven D.
APPLICANT: Barton, Randall W.
TITLE OF INVENTION: Self-Regulated Apoptosis of Inflammatory Cells by Gene Therapy
FILE REFERENCE: 9/137
CURRENT APPLICATION NUMBER: US/09/229,151C
CURRENT FILING DATE: 1999-01-12
PRIOR APPLICATION NUMBER: US 60/076,316
PRIOR FILING DATE: 1998-02-27
NUMBER OF SEQ ID NOS: 15
SOFTWARE: PatentIn version 2.0
SEQ ID NO 14
LENGTH: 2570
TYPE: DNA
ORGANISM: Human
FEATURE:
OTHER INFORMATION: chimeric gene : -1005TNNFpGB3'UTR
US-09-229-151C-14

Query Match 100.0%; Score 104; DB 4; Length 2570;
Best Local Similarity 100.0%; Pred. No. 3.6e-27;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 GAATTCAAACCTGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 60
Db 2005 GAATTCAAACCTGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 2064
QY 61 GAATCTGGAGACCAGGAGCCCTTTGGTTCTGGCCAGAAATGCTGC 104
Db 2065 GAATCTGGAGACCAGGAGCCCTTTGGTTCTGGCCAGAAATGCTGC 2108

RESULT 8
US-09-166-186-1
; Sequence 1, Application US/09166186A
; Patent No. 6080580
; GENERAL INFORMATION:
; APPLICANT: Baker, Brenda
; APPLICANT: Bennett, C. Frank
; APPLICANT: Butler, Madeline M.
; APPLICANT: Shanahan, William R.
; TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDE MODULATION OF TNF-a EXPRESSION
; FILE REFERENCE: ISPH-0322
; CURRENT APPLICATION NUMBER: US/09/166,186A
; CURRENT FILING DATE: 1998-10-05
; NUMBER OF SEQ ID NOS: 250
; SEQ ID NO 1
; LENGTH: 3634
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (796..981,1589..1634,1822..1869,2171..2592)
; FEATURE:
; NAME/KEY: exon
; LOCATION: (615)..(981)
; FEATURE:
; NAME/KEY: intron
; LOCATION: (982)..(1588)
; FEATURE:
; NAME/KEY: exon
; LOCATION: (1589)..(1634)
; FEATURE:
; NAME/KEY: intron
; LOCATION: (1635)..(1821)
; FEATURE:
; NAME/KEY: exon
; LOCATION: (1822)..(1869)
; FEATURE:
; NAME/KEY: intron
; LOCATION: (1870)..(2070)
; FEATURE:
; NAME/KEY: exon
; LOCATION: (2171)..(3381)
; PUBLICATION INFORMATION:
; AUTHORS: Nedwin, G.E.
; AUTHORS: Naylor, S.L.
; AUTHORS: Sakaguchi, A.Y.
; AUTHORS: Smith, D.
; AUTHORS: Jarrett-Nedwin, J.
; AUTHORS: Pennica, D.
; AUTHORS: Goeddel, D.V.
; AUTHORS: Gray, P.W.
; TITLE: Human lymphotoxin and tumor necrosis factor genes: structure,
; TITLE: homology and chromosomal localization
; JOURNAL: Nucleic Acids Res.
; VOLUME: 13
; ISSUE: 17
; PAGES: 6361-6373
; DATE: 1985-09-11
; DATABASE ACCESSION NUMBER: X02910 Genbank
; DATABASE ENTRY DATE: 1997-02-17
US-09-166-186-1

Query Match 100.0%; Score 104; DB 3; Length 3634;
Best Local Similarity 100.0%; Pred. No. 4e-27;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 GAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 60
Db 2808 GAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 2867
QY 61 GAATCTGGAGACCAGGAGCCCTTTGGTTCTTGGCCAGAAATGCTGC 104
Db 2868 GAATCTGGAGACCAGGAGCCCTTTGGTTCTTGGCCAGAAATGCTGC 2911

RESULT 9
US-09-313-932-1
; Sequence 1, Application US/09313932A
; Patent No. 6228642
; GENERAL INFORMATION:
; APPLICANT: Baker, Brenda
; APPLICANT: Bennett, C. Frank
; APPLICANT: Butler, Madeline M.
; APPLICANT: Shanahan, William R.
; TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDE MODULATION OF TNF-
; TITLE OF INVENTION: EXPRESSION
; FILE REFERENCE: ISPH-0356
; CURRENT APPLICATION NUMBER: US/09/313,932A
; CURRENT FILING DATE: 1999-05-18
; NUMBER OF SEQ ID NOS: 501
; SEQ ID NO 1
; LENGTH: 3634
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (796..981,1589..1634,1822..1869,2171..2592)
; FEATURE:
; NAME/KEY: exon
; LOCATION: (615)..(981)
; FEATURE:
; NAME/KEY: intron
; LOCATION: (982)..(1588)
; FEATURE:
; NAME/KEY: exon
; LOCATION: (1589)..(1634)
; FEATURE:
; NAME/KEY: intron
; LOCATION: (1635)..(1821)
; FEATURE:
; NAME/KEY: exon
; LOCATION: (1822)..(1869)
; FEATURE:
; NAME/KEY: intron
; LOCATION: (1870)..(2070)
; FEATURE:
; NAME/KEY: exon
; LOCATION: (2171)..(3381)
; PUBLICATION INFORMATION:
; AUTHORS: Nedwin, G.E.
; AUTHORS: Naylor, S.L.
; AUTHORS: Sakaguchi, A.Y.
; AUTHORS: Smith, D.
; AUTHORS: Jarrett-Nedwin, J.
; AUTHORS: Pennica, D.
; AUTHORS: Goeddel, D.V.
; AUTHORS: Gray, P.W.
; TITLE: Human lymphotoxin and tumor necrosis factor genes:
; TITLE: structure, homology and chromosomal localization
; JOURNAL: Nucleic Acids Res.
; VOLUME: 13
; ISSUE: 17
; PAGES: 6361-6373
; DATE: 1985-09-11
; DATABASE ACCESSION NUMBER: X02910 Genbank
; DATABASE ENTRY DATE: 1997-02-17
US-09-313-932-1

Query Match 100.0%; Score 104; DB 3; Length 3634;
Best Local Similarity 100.0%; Pred. No. 4e-27;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 GAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 60
Db 2808 GAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 2867

QY 61 GAATCTGGAGACGAGGAGCCCTTGGTTCTGGCCAGAAATGCTGC 104
|||||
Db 2868 GAATCTGGAGACGAGGAGCCCTTGGTTCTGGCCAGAAATGCTGC 2911

RESULT 10
US-09-109-663-34
; Sequence 34, Application US/09109563
; Patent No. 6277981
; GENERAL INFORMATION:
; APPLICANT: Tu, Guang-Chou
; APPLICANT: Israel, Yedy
; TITLE OF INVENTION: AN IMPROVED METHOD FOR DESIGN AND SELECTION OF
; TITLE OF INVENTION: EFFICACIOUS ANTISENSE OLIGONUCLEOTIDES
; FILE REFERENCE: 9855-3U1
; CURRENT APPLICATION NUMBER: US/09/109,663
; CURRENT FILING DATE: 1998-07-03
; EARLIER APPLICATION NUMBER: 60/051,705
; EARLIER FILING DATE: 1997-07-03
; NUMBER OF SEQ ID NOS: 81
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 34
; LENGTH: 3634
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: TNF(alpha) cDNA
US-09-109-663-34

Query Match 100.0%; Score 104; DB 3; Length 3634;
Best Local Similarity 100.0%; Pred. No. 4e-27;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 GAATTCAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 60
|||||
Db 2808 GAATTCAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 2867

QY 61 GAATCTGGAGACGAGGAGCCCTTTGGTTCTGGCCAGAAATGCTGC 104
|||||
Db 2868 GAATCTGGAGACGAGGAGCCCTTTGGTTCTGGCCAGAAATGCTGC 2911

RESULT 11
US-09-976-594-142/c
; Sequence 142, Application US/09976594
; Patent No. 6673549
; GENERAL INFORMATION:
; APPLICANT: Furness, Michael
; APPLICANT: Buchbinder, Jenny
; TITLE OF INVENTION: GENES EXPRESSED IN C3A LIVER CELL CULTURES TREATED WITH STEROIDS
; FILE REFERENCE: PA-0041 US
; CURRENT APPLICATION NUMBER: US/09/976,594
; CURRENT FILING DATE: 2001-10-12
; PRIOR APPLICATION NUMBER: 60/240,409
; PRIOR FILING DATE: 2000-10-12
; NUMBER OF SEQ ID NOS: 1143
; SOFTWARE: PERL Program
; SEQ ID NO 142
; LENGTH: 2623
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: misc feature
; OTHER INFORMATION: Incyte ID No. 6673549 337187.1
; NAME/KEY: unsure
; LOCATION: 2612
; OTHER INFORMATION: a, t, c, g, or other
US-09-976-594-142

Query Match 31.3%; Score 32.6; DB 4; Length 2623;
Best Local Similarity 58.9%; Pred. No. 0.052;
Matches 56; Conservative 0; Mismatches 39; Indels 0; Gaps 0;

QY 9 ACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTGGAATCTGG 68
|||||
Db 359 ACTGGGTGCTGAGGTAGTAGCGGGGCTGTGCCTGCCCTGCCCTCCGGCTTGGAGGGGG 300
|||||
QY 69 AGACCAGGAGCCCTTTGGTTCTGGCCAGAAATGCTG 103
|||||
Db 299 AGCCCTGAGGGCCTCTGGGGCTGGCCTGGAAGGTG 265
|||||

RESULT 12
US-09-341-587-7/c
; Sequence 7, Application US/09341587
; Patent No. 6346606
; GENERAL INFORMATION:
; APPLICANT: Mollenhauer, Jan
; TITLE OF INVENTION: Protein Containing an SRCR Domain
; FILE REFERENCE: 4121-108
; CURRENT APPLICATION NUMBER: US/09/341,587
; CURRENT FILING DATE: 1999-08-31
; EARLIER APPLICATION NUMBER: PCT/DE98/00096
; EARLIER FILING DATE: 1998-01-09
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 7
; LENGTH: 28720
; TYPE: DNA
; ORGANISM: Homo sapiens
; OTHER INFORMATION:
US-09-341-587-7

Query Match 26.9%; Score 28; DB 4; Length 28720;
Best Local Similarity 58.3%; Pred. No. 4.9;
Matches 49; Conservative 0; Mismatches 35; Indels 0; Gaps 0;

QY 2 AATTCAAACCTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTGG 61
|||||
Db 14762 AATTGAAGAGGGTCTCTAGAGAGGAGAGAGGGGACATCTCCATTGTACCAGGTCTTCAGG 14703
|||||

QY 62 AATCTGGAGACGAGGAGCCCTTTG 85
|||||
Db 14702 TATTTGTGACAAGGAATCATCTG 14679
|||||

RESULT 13
US-09-818-512-3
; Sequence 3, Application US/09818512
; Patent No. 6537780
; GENERAL INFORMATION:
; APPLICANT: BEASLEY, Ellen et al.
; TITLE OF INVENTION: ISOLATED HUMAN ENZYME PROTEINS, NUCLEIC
; TITLE OF INVENTION: ACID MOLECULES ENCODING HUMAN ENZYME PROTEINS, AND USES
; TITLE OF INVENTION: THEREOF
; FILE REFERENCE: CL001192
; CURRENT APPLICATION NUMBER: US/09/818,512
; CURRENT FILING DATE: 2001-03-28
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 3
; LENGTH: 116592
; TYPE: DNA
; ORGANISM: Human
; FEATURE:
; NAME/KEY: misc feature
; LOCATION: (1)...(116592)
; OTHER INFORMATION: n = A,T,C or G
US-09-818-512-3

Query Match 26.3%; Score 27.4; DB 4; Length 116592;
Best Local Similarity 54.5%; Pred. No. 13;
Matches 55; Conservative 0; Mismatches 46; Indels 0; Gaps 0;

QY 4 TTCAAACCTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTGGAA 63
|||||
Db 81506 TCCAAACTATTGCCAGTAGCTTTCTGTTTCCCATCATTTTTTCAACCCAGAAATATTTAT 81565
|||||

GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
OM nucleic - nucleic search, using sw model
Run on: September 2, 2004, 02:56:08 ; Search time 372.136 Seconds
(without alignments)
1187.234 Million cell updates/sec
Title: US-09-801-371A-1
Perfect score: 104
Sequence: 1 gaattcaaacaggggcctcc.....ggttctggccagaatgctgc 104
Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
Searched: 3373863 seqs, 2124099041 residues
Total number of hits satisfying chosen parameters: 6747726
Minimum DB seq length: 0
Maximum DB seq length: 2000000000
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : N_Geneseq_29Jan04:*
1: geneseqn1980s:*
2: geneseqn1990s:*
3: geneseqn2000s:*
4: geneseqn2001as:*
5: geneseqn2001bs:*
6: geneseqn2002s:*
7: geneseqn2003as:*
8: geneseqn2003bs:*
9: geneseqn2003cs:*
10: geneseqn2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	104	100.0	104	3	Aaz99816 Cis-actin
2	104	100.0	787	2	Aaz20979 Human TNF
3	104	100.0	1275	1	Aan60558 Sequence
4	104	100.0	1323	1	Aan60363 Sequence
5	104	100.0	1324	3	Aaa34963 Human ade
6	104	100.0	1324	3	Aaf21085 Human low
7	104	100.0	1324	7	Abz96779 Human nuc
8	104	100.0	1560	1	Aan80219 Sequence
9	104	100.0	1585	1	Aan60557 Sequence
10	104	100.0	1585	7	Aca64836 Human TNF
11	104	100.0	1606	1	Aan60446 Sequence
12	104	100.0	1606	2	Aat15424 Human tum
13	104	100.0	1643	2	Aat31021 Human tum
14	104	100.0	1643	6	Abk13195 Human tum
15	104	100.0	1643	7	Acc57575 Polynucle
16	104	100.0	1643	7	Aal53712 Tumour ne
17	104	100.0	1643	7	Aad49644 Human tum
18	104	100.0	1643	9	Adc35185 Human cdn
19	104	100.0	1650	7	Acf64375 Human TNF
20	104	100.0	1666	9	Ade25664 Human cdn
21	104	100.0	2270	2	Aaz20983 Chimeric
22	104	100.0	2570	2	Aaz20984 Chimeric
23	104	100.0	3634	2	Aav39005 TNF-alpha

24	104	100.0	3634	2	AAx09014	Aax09014 Tumour ne
25	104	100.0	3634	3	AAA40760	Aaa40760 Human tum
26	104	100.0	3634	3	AAC63770	Aac63770 Human TNF
27	104	100.0	3634	7	ACF63382	Acf63382 Human TNF
28	104	100.0	3634	7	ACC57891	Acc57891 Human tum
29	104	100.0	3634	7	ACA64946	Aca64946 Human TNF
30	104	100.0	3634	8	ACD04988	Acd04988 DNA encod
31	104	100.0	6911	6	AAD45858	Aad45858 Human tum
32	104	100.0	6911	6	AAD45898	Aad45898 Human tum
33	104	100.0	7112	4	AAF86085	Aaf86085 Lymphotox
34	104	100.0	7112	5	AAF57450	Aaf57450 Human tum
35	104	100.0	7112	7	AAL51863	Aal51863 Human tum
C 36	104	100.0	16310	3	AAA34964	Aaa34964 Human ade
C 37	104	100.0	16310	3	AAF21086	Aaf21086 Human low
C 38	104	100.0	16310	7	ABZ96780	Abz96780 Human nuc
C 39	104	100.0	17634	3	AAA34965	Aaa34965 Human ade
C 40	104	100.0	17634	3	AAA34965	Aaa34965 Human ade
41	104	100.0	17634	3	AAF21087	Aaf21087 Human low
C 42	104	100.0	17634	3	AAF21087	Aaf21087 Human low
43	104	100.0	17634	7	ABZ96781	Abz96781 Human nuc
C 44	104	100.0	17634	7	ABZ96781	Abz96781 Human nuc
C 45	104	100.0	81800	6	ABK84756	Abk84756 Human CDN

ALIGNMENTS

RESULT 1
AAZ99816
ID AAZ99816 standard; RNA; 104 BP.
XX AC AAZ99816;
XX
DT 12-JUL-2000 (first entry)
XX
DE Cis-acting nucleotide sequence derived from human TNF-alpha.
XX
KW Cis-acting sequence; intron removal; trans-acting factor; alpha-subunit;
KW RNA-activated protein kinase; eukaryotic initiation factor 2; eIF2alpha;
KW tumour necrosis factor alpha; TNF-alpha; gene therapy; ss.
XX
OS Homo sapiens.
XX
PN WO200014255-A1.
XX
PD 16-MAR-2000.
XX
PF 06-SEP-1999; 99WO-IL000483.
XX
PR 07-SEP-1998; 98IL-00126112.
PR 26-OCT-1998; 98IL-00126757.
XX
PA (YISS) YISSUM RES & DEV CO.
XX
PI Kaempfer R, Osman F, Jarrous N, Ben-Asouli Y;
XX
DR WPI; 2000-257000/22.
XX
PT Regulation of gene expression by mRNA splicing is carried out using a cis
PT -acting nucleotide sequence controlled by phosphorylation of the alpha-
PT subunit of eukaryotic initiation factor 2.
XX
PS Claim 4; Page 15; 75pp; English.
XX
CC The specification describes a cis-acting nucleotide sequence which is
CC capable of removing introns from a precursor transcript encoded by a gene
CC which harbours at least one cis-acting nucleotide sequence. This removal
CC is effected during the production of mRNA of the gene, and depends on
CC activation of a trans-acting factor which is an RNA-activated protein
CC kinase capable of phosphorylating the alpha-subunit of eukaryotic
CC initiation factor 2 (eIF2alpha). Insertion of a cis-acting nucleotide
CC sequence, derived from the 3' untranslated region (3'UTR) of the human
CC tumour necrosis factor alpha (TNF-alpha) gene, into another gene renders

splicing of precursor transcripts encoded by that gene sensitive to the level of RNA-activated protein kinase (PKR) activity. The sequence can be used to transform host cells to regulate gene expression at the mRNA splicing level, for gene therapy, and to produce a recombinant therapeutic (e.g. an enzyme, hormone, growth factor, cytokine, structural protein) or industrially or agriculturally applicable protein. The present sequence represents a cis-acting nucleotide sequence of the invention

RESULT 2
AAZ20979
ID AAZ20979 standard; DNA; 787 BP.

This sequence represents a human TNFalpha (tumour necrosis factor alpha) 3'UTR (untranslated region). Chimeric nucleotides (AAZ20983, 220984) were constructed comprising at least one TNFalpha promoter enhancer region (AAZ20975-220978), a TNFalpha promoter (AAZ20972-220974), a DNA encoding the apoptosis-inducing Granzyme B protein (AAZ20982), and a TNFalpha 3'UTR sequence. TNFalpha is one of a number of cytokines produced by inflammatory cells. Upregulation and/or dysregulation of cytokines in inflamed tissue may be directly or indirectly responsible for exacerbation of chronic inflammatory diseases. Introduction of the chimeric nucleotide to activated inflammatory cells causes them to undergo apoptosis. Pharmaceutical compositions of the chimeric nucleotide may be useful for treating inflammatory disorders such as multiple sclerosis, Crohn's disease, ulcerative colitis, psoriasis, graft versus

CC host disease, lupus erythematosus, insulin-dependent (type I) diabetes
CC mellitus, ankylosing spondylitis, and in particular, rheumatoid
CC arthritis. The use of such chimeric nucleotides offers simpler and
CC cheaper long-term relief, in comparison with existing conventional
XX pharmaceutical and invasive surgery methods
SQ Sequence 787 BP; 190 A; 204 C; 172 G; 221 T; 0 U; 0 Other;

RESULT 3
AAN60558
ID AAN60558 standard; DNA; 1275 BP.

The sequence encoding TNF produced by the promyelocytic leukemia cell line (HL-60, ATCC no.CCL240) has been cloned and expressed in *E.coli* (see AAN60557). Neither of the cysteine residues (69 and 101) in the TNF sequence appears to be involved in disulphide linkages. The patentors claim a novel synthetic mutein of a biologically active hTNF protein, having at least one cysteine residue free from a disulphide link and non-essential to the activity and having at least one of the cysteine residues deleted or replaced by another AA. Plasmid pAW731 (Ser 69) is claimed

Sequence 1275 BP; 298 A; 357 C; 308 G; 312 T; 0 U; 0 Other;
Query Match 100.0%; Score 104; DB 1; Length 1275;

Best Local Similarity 100.0%; Pred. No. 4.4e-25;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 GAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 60
Db |||||
QY 693 GAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 752
Db |||||
QY 61 GAATCTGGAGACCAGGAGCCTTTGGTTCTTGGCCAGAAATGCTGC 104
Db |||||
QY 753 GAATCTGGAGACCAGGAGCCTTTGGTTCTTGGCCAGAAATGCTGC 796
Db |||||

RESULT 4
AAN60363
ID AAN60363 standard; DNA; 1323 BP.
XX
AC AAN60363;
XX
DT 19-JUN-1991 (first entry)
XX
DE Sequence encoding human tumour necrosis factor.
KW hTNF; tumour; cancer; interferon; ds.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT CDS 1..534
FT /*tag= a
FT sig_peptide 1..60
FT /*tag= b
FT /label= Secretory leader peptide
FT mat_peptide 61..534
FT /*tag= c

XX
XX EP168214-A.
PN
XX
PD 15-JAN-1986.
XX
XX
PF 03-JUL-1985; 85EP-00304758.
XX
PR 05-JUL-1984; 84US-00627959.
PR 05-JUL-1984; 84US-00628059.
PR 05-JUL-1984; 84US-00628060.
PR 03-DEC-1984; 84US-00677156.
PR 03-DEC-1984; 84US-00677257.
PR 03-DEC-1984; 84US-00677267.
PR 03-DEC-1984; 84US-00677454.
XX
PA (GETH) GENENTECH INC.
XX
PI Aggarwal BB, Lee SH, Goeddel DV, Nedwin GE;
XX
DR WPI; 1986-015483/03.
DR P-PSDB; AAP60417.
XX
PT Pure tumour necrosis factor and mutant forms - new DNA coding sequences
PT and transformed cells.
XX
PS Claim 20; Fig 10; 90pp; English.
XX
CC Sequence encodes the pure human tumour necrosis factor, mutants of which
CC are covered by the claims. TNF and mutants are useful in treating
CC tumours, especially in tandem with interferon. The encoding sequence may
CC be used to create plasmid pTrpXAPNF, allowing transformation of an
CC E.coli host for the expression of TNF
XX
SQ Sequence 1323 BP; 298 A; 385 C; 310 G; 330 T; 0 U; 0 Other;

Query Match 100.0%; Score 104; DB 1; Length 1323;
Best Local Similarity 100.0%; Pred. No. 4.5e-25;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 GAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 60
Db |||||
QY 750 GAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 809
Db |||||
QY 61 GAATCTGGAGACCAGGAGCCTTTGGTTCTTGGCCAGAAATGCTGC 104
Db |||||
QY 810 GAATCTGGAGACCAGGAGCCTTTGGTTCTTGGCCAGAAATGCTGC 853
Db |||||

RESULT 5
AAA34963
ID AAA34963 standard; DNA; 1324 BP.
XX
AC AAA34963;
XX
DT 28-JUL-2000 (first entry)
XX
DE Human adenosine receptor related polynucleotide SEQ ID NO:2652.
XX
KW Human; adenosine receptor; low adenosine antisense oligonucleotide;
KW phosphorothiccate; impaired respiration; inflammation; allergy;
KW allergic disease; bronchoconstriction; inhibitor; antiinflammatory;
KW antiallergic; antiasthmatic; cytostatic; analgesic; impaired airway;
KW lung disease; ischaemic condition; pulmonary vasoconstriction; asthma;
KW respiratory distress syndrome; pain; cystic fibrosis; emphysema;
KW pulmonary hypertension; chronic obstructive pulmonary disease; COPD;
KW cancer; leukaemia; lymphoma; carcinoma; metastasis; ss.
XX
OS Homo sapiens.
XX
XX WO200009525-A2.
XX
PD 24-FEB-2000.
XX
XX
PF 03-AUG-1999; 99WO-US017712.
XX
PR 03-AUG-1998; 98US-0095212P.
XX
PA (UYEC-) UNIV EAST CAROLINA.
XX
PI Nyce JW;
XX
DR WPI; 2000-205971/18.
XX
PT New antisense oligonucleotides useful for treating e.g. pulmonary
PT vasoconstriction, inflammation, allergies, asthma, hypertension,
PT bronchitis, emphysema, respiratory distress syndrome, ischemia or
PT cancers.
XX
PS Disclosure; Page 814-815; 1343pp; English.
XX

CC The present invention describes a new composition comprising an antisense
CC oligonucleotide (ON) with low adenosine (up to 15%), which targets
CC nucleic acids involved in bronchoconstriction, allergies, and/or
CC inflammation. The ON can have antiinflammatory, antiallergic,
CC antiasthmatic, cytostatic and analgesic activities. The compositions are
CC useful for the treatment of diseases associated with inflammation,
CC impaired airways, including lung disease and diseases whose secondary
CC effects afflict the lungs of a subject. They can be used for treating
CC e.g. ischaemic conditions, pulmonary vasoconstriction, allergies, asthma,
CC impeded respiration, respiratory distress syndrome, pain, cystic
CC fibrosis, pulmonary hypertension, emphysema, chronic obstructive
CC pulmonary disease (COPD), and cancers such as leukaemias, lymphomas,
CC carcinomas, and cancers which may metastasise to the lungs, including
CC breast and prostate cancer. The reduction of the adenosine content of the
CC ONs reduces side effects. The A-containing ONs break down with the
CC release of deoxyadenosine which activates adenosine receptors causing
CC bronchoconstriction and inflammation. AAA32313 to AAA35312 represent the
CC nucleotide sequences given in the sequence listing from the present
CC invention, which correspond to SEQ ID NO:1 to 2815, and then the last 185
CC sequences are also called SEQ ID NO:1 to 185, but the sequences differ
CC from the previously named sequences. SEQ ID NO:11 to 1680 (AAA32323 to
CC AAA33992) are specifically claimed ONs from the present invention. N.B.

CC Sequences given in the disclosure of the present invention do not match
CC up with their corresponding SEQ ID NO: sequences given in the sequence
CC listing
XX
SQ Sequence 1324 BP; 298 A; 387 C; 308 G; 331 T; 0 U; 0 Other;

Query Match 100.0%; Score 104; DB 3; Length 1324;
Best Local Similarity 100.0%; Pred. No. 4.5e-25;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 GAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCTACAGCTTGATCCCTGACATCTG 60
|||||
Db 751 GAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCTACAGCTTGATCCCTGACATCTG 810

QY 61 GAATCTGGAGACCAGGGAGCCTTTGGTTCTGGCCAGAAATGCTGC 104
|||||
Db 811 GAATCTGGAGACCAGGGAGCCTTTGGTTCTGGCCAGAAATGCTGC 854

RESULT 6
AAF21085
ID AAF21085 standard; DNA; 1324 BP.
XX
AC AAF21085;
XX
DT 14-MAR-2001 (first entry)
XX
DE Human low adenosine antisense oligonucleotide related sequence #2652.
XX
KW Low adenosine antisense oligonucleotide; phosphorothioate; allergy;
KW human; airway disorder; bronchoconstriction; lung inflammation;
KW surfactant depletion; respiratory; bronchodilator; antiinflammatory;
KW immunosuppressive; antiasthmatic; analgesic; hypotensive; cytostatic;
KW respiratory obstruction; pulmonary obstruction; impeded respiration;
KW surfactant hypoproduction; pulmonary vasoconstriction; asthma; RDS;
KW respiratory distress syndrome; pain; cystic fibrosis; allergic rhinitis;
KW pulmonary hypertension; emphysema; pulmonary transplantation rejection;
KW chronic obstructive pulmonary disease; pulmonary infection; bronchitis;
KW cancer; ss.
XX
OS Homo sapiens.
XX
PN WO200062736-A2.
XX
PD 26-OCT-2000.
XX
PF 24-MAR-2000; 2000WO-US008020.
XX
PR 06-APR-1999; 99US-0127958P.
XX
PA (UYEC-) UNIV EAST CAROLINA.
PA (NYCE/) NYCE J W.
XX
PI Nyce JW;
XX
DR WPI; 2000-679539/66.
XX
PT Low adenosine (A) content antisense oligonucleotides which do not trigger
PT adenosine receptors during metabolism, useful e.g. for treating cancers
PT and respiratory obstructions.
XX
PS Disclosure; Page 887; 1592pp; English.
XX
CC The present invention describes low adenosine (A) content antisense
CC oligonucleotides and compositions (I) comprising them. In the antisense
CC oligonucleotides the A is replaced by a 'Universal' or alternative base.
CC (I) can have respiratory, bronchodilator, antiinflammatory, analgesic,
CC immunosuppressive, antiasthmatic, hypotensive and cytostatic activities.
CC The antisense oligonucleotides and (I) can be used to down-regulate the
CC expression and or activity of target polypeptides associated with
CC lung/respiratory disorders and malignancies, such as stimulating and
CC activating peptide factors and transmitters, transcription factors,
CC immunoglobulins and antibodies, antibody receptors, cytokines and

CC chemokines, endogenously produced specific and non-specific enzymes,
CC binding proteins, adhesion molecules and their receptors, cytokine and
CC chemokine receptors, adenosine receptors, bradykinin receptors, central
CC nervous system (CNS) and peripheral nervous and non-nervous system
CC receptors, CNS and peripheral nervous and non-nervous system peptide
CC transmitters, defensins, growth factors, vasoactive peptides and
CC receptors, binding proteins and malignancy associated proteins. The
CC antisense oligonucleotides may be used in this way to treat disorders
CC including respiratory obstruction (especially pulmonary obstruction
CC and/or bronchoconstriction) and/or lung inflammation, allergy(ies) and/or
CC surfactant hypoproduction which are associated with a disease or
CC condition selected from pulmonary vasoconstriction, inflammation,
CC allergies, asthma, impeded respiration, respiratory distress syndrome
CC (RDS), pain, cystic fibrosis (CF), allergic rhinitis (AR), pulmonary
CC hypertension, emphysema, chronic obstructive pulmonary disease (COPD),
CC pulmonary transplantation rejection, pulmonary infections, bronchitis,
CC and/or cancer. AAF18434 to AAF21543 represent human polynucleotide
CC fragments and antisense oligonucleotides used in the exemplification of
CC the present invention
XX
SQ Sequence 1324 BP; 298 A; 387 C; 308 G; 331 T; 0 U; 0 Other;

Query Match 100.0%; Score 104; DB 3; Length 1324;
Best Local Similarity 100.0%; Pred. No. 4.5e-25;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 GAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCTACAGCTTGATCCCTGACATCTG 60
|||||
Db 751 GAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCTACAGCTTGATCCCTGACATCTG 810

QY 61 GAATCTGGAGACCAGGGAGCCTTTGGTTCTGGCCAGAAATGCTGC 104
|||||
Db 811 GAATCTGGAGACCAGGGAGCCTTTGGTTCTGGCCAGAAATGCTGC 854

RESULT 7
ABZ96779
ID ABZ96779 standard; DNA; 1324 BP.
XX
AC ABZ96779;
XX
DT 17-OCT-2003 (first entry)
XX
DE Human nucleic acid sequence.
XX
KW Human; antisense; lung dysfunction; nasal airway dysfunction;
KW antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KW antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KW antisense gene therapy; respiratory; lung; adenosine sensitivity;
KW adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KW lung inflammation; respiratory disease; ds.
XX
OS Homo sapiens.
XX
PN WO200285308-A2.
XX
PD 31-OCT-2002.
XX
PF 23-APR-2002; 2002WO-US013135.
XX
PR 24-APR-2001; 2001US-0286137P.
XX
PA (EPIG-) EPIGENESIS PHARM INC.
XX
PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
DR WPI; 2003-229219/22.
XX
PT Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.

XX PS Disclosure; SEQ ID NO 12021; 872pp; English.

XX CC The invention relates to a novel pharmaceutical composition, which has a

CC first active agent comprising an oligonucleotide antisense to the

CC initiation codon, coding region, 5' or 3' end genomic flanking regions,

CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of

CC junctions of genes encoding a polypeptide associated with lung and/or

CC nasal airway dysfunction and a second active agent comprising an

CC antiinflammatory steroid and ubiquinone. A composition of the invention

CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,

CC immunosuppressive, and cytostatic activity. The composition may have a

CC use in antisense gene therapy. The composition is useful for treating or

CC preventing a respiratory, lung or malignant disease or condition, also

CC for enhancing the prophylactic or therapeutic respiratory effect of an

CC antiinflammatory steroid in a subject, for reducing or depleting levels

CC of, or reducing sensitivity to adenosine, reducing levels of adenosine

CC receptor, producing bronchodilation, increasing levels of ubiquinone or

CC lung surfactant in a subject's tissue, or treating bronchoconstriction,

CC lung inflammation, lung allergies, or a respiratory disease or condition.

CC Note: The sequence data for this patent is not represented in the printed

CC specification, but was obtained in electronic format directly from WIPO

CC at ftp.wipo.int/pub/published_pct_sequences

XX SQ Sequence 1324 BP; 298 A; 387 C; 308 G; 331 T; 0 U; 0 Other;

Query Match 100.0%; Score 104; DB 7; Length 1324;
Best Local Similarity 100.0%; Pred. No. 4.5e-25;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 GAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 60
Db |||||
751 GAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 810

QY 61 GAATCTGGAGACAGGGAGCCTTTGGTTCTGGCCAGAAATGCTGC 104
Db |||||
811 GAATCTGGAGACAGGGAGCCTTTGGTTCTGGCCAGAAATGCTGC 854

RESULT 8

AAN80219

ID AAN80219 standard; DNA; 1560 BP.

XX AC AAN80219;

XX DT 28-DEC-1990 (first entry)

XX DE Sequence of pE4 encoding human tumour necrosis factor (TNF).

XX KW Lymphokine; antitumour; ss.

XX OS Homo sapiens.

Key Location/Qualifiers
CDS 86..313
/*tag= a
mat_peptide 314..787
/*tag= b

WO806625-A.

XX PD 07-SEP-1988.

XX PF 25-JAN-1988; 88WO-US000183.

XX PR 26-FEB-1987; 87US-00019221.

XX PA (CETU) CETUS CORP.

XX PI Mark DF, Lin LS, Thomson JW, Yamamoto R;

XX WPI; 1988-271165/38.

DR P-PSDB; AAP80728.

XX PT Human tumour necrosis factor muteins - having comparable biological

PS activity with improved stability and ease of purification.

XX PS Disclosure; Fig 1-1 to 1-2; 51pp; English.

XX CC A human TNF protein which is modified from the sequence shown in

CC AAP80728, including naturally occurring allelic variants is claimed. Also

CC claimed are: recombinant DNA sequences encoding the protein (AAN80219)

CC and control sequences for expression; a vector; a transformed host cell;

CC a method of producing the protein by culturing the host cell;

CC pharmaceutical compsn. of the protein and a carrier and a method of

CC treating tumour burden with the compsn. The muteins are capable of the

CC range of biological activities exhibited by native TNF but exhibit

CC improved stability and ease of purification

XX SQ Sequence 1560 BP; 340 A; 473 C; 381 G; 366 T; 0 U; 0 Other;

Query Match 100.0%; Score 104; DB 1; Length 1560;
Best Local Similarity 100.0%; Pred. No. 4.7e-25;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 GAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 60
Db |||||
1003 GAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGATCCCTGACATCTG 1062

QY 61 GAATCTGGAGACAGGGAGCCTTTGGTTCTGGCCAGAAATGCTGC 104
Db |||||
1063 GAATCTGGAGACAGGGAGCCTTTGGTTCTGGCCAGAAATGCTGC 1106

RESULT 9

AAN60557

ID AAN60557 standard; DNA; 1585 BP.

XX AC AAN60557;

XX DT 28-JUL-1991 (first entry)

XX DE Sequence encoding mature human tumour necrosis factor (hTNF) in pE4.

XX KW Antitumour; anticancer; ss.

XX OS Homo sapiens.

Key Location/Qualifiers
CDS 86..313
/*tag= a
mat_peptide 314..787
/*tag= b

WO8604606-A.

XX PD 14-AUG-1986.

XX PF 03-FEB-1986; 86WO-US000236.

XX PR 07-FEB-1985; 85US-00698939.

XX PA (CETU) CETUS CORP.

XX PI Mark DF, Lin LS, Lu SDY, Wang AM;

XX WPI; 1986-225458/34.

DR P-PSDB; AAP60655.

XX PT New synthetic muteins of human tumour necrosis factor protein - are obtd.

PS by direct mutagenesis and retain antitumour activity.

XX PS Disclosure; Fig 1; 47pp; English.

XX CC The sequence encoding TNF produced by the promyelocytic leukemia cell

CC line (HL-60, ATCC no.CCL240) has been cloned and expressed in E.coli (see

CC AAN60557). Neither of the cysteine residues (69 and 101) in the TNF
CC sequence appears to be involved in disulphide linkages. The patentors
CC claim a novel synthetic mutein of a biologically active hTNF protein,
CC having at least one cysteine residue free from a disulphide link and non-
CC essential to the activity and having at least one of the cysteine
CC residues deleted or replaced by another AA. Plasmid pAW731 (Ser 69) is
CC claimed
XX
SQ Sequence 1585 BP; 352 A; 473 C; 389 G; 371 T; 0 U; 0 Other;
Query Match 100.0%; Score 104; DB 1; Length 1585;
Best Local Similarity 100.0%; Pred. No. 4.7e-25;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 GAATTCAAACCTGGGGCTCCAGAACTCACTGGGGCTACAGCTTTGATCCCTGACATCTG 60
Db 1003 GAATTCAAACCTGGGGCTCCAGAACTCACTGGGGCTACAGCTTTGATCCCTGACATCTG 1062
QY 61 GAATCTGGAGACCCAGGAGCCTTTGGTTCTGGCCAGAAATGCTGC 104
Db 1063 GAATCTGGAGACCCAGGAGCCTTTGGTTCTGGCCAGAAATGCTGC 1106
RESULT 10
ACA64836
ID ACA64836 standard; DNA; 1585 BP.
XX
AC ACA64836;
XX
DT 27-JUN-2003 (first entry)
XX
DE Human TNF-alpha DNA corresponding to M10988.
XX
KW Human; chronic inflammatory joint disease; infection; tumour;
KW antiinflammatory; cytostatic; antiarthritic; anti-rheumatic;
KW immunosuppressive; gene therapy; etiologic pathogenicity; ds.
XX
OS Homo sapiens.
XX
PN DE10127572-A1.
XX
PD 05-DEC-2002.
XX
PF 30-MAY-2001; 2001DE-01027572.
XX
PR 30-MAY-2001; 2001DE-01027572.
XX
PA (PATH-) PATHOARRAY GMBH.
XX
PI Haeupl T, Ungethuen U, Blaess S;
XX
DR WPI; 2003-240797/24.
XX
PT Reagents for diagnosis, study and therapy of chronic inflammatory joint
PT and other diseases, comprises any of many specified genes or derived
PT proteins.
XX
PS Claim 1; Page; 12pp; German.
XX
CC This invention describes a novel reagent for diagnosis, molecular
CC definition and therapy of chronic inflammatory joint diseases, and other
CC inflammatory disorders, infective or tumour diseases in humans. The
CC products of the invention have antiinflammatory, cytostatic,
CC antiarthritic, anti-rheumatic and immunosuppressive activity and can be
CC used for gene therapy. The reagent of the invention and any proteins and
CC antibodies derived from it, are used (i) for analysing tissue and blood
CC samples for medical diagnosis; (ii) for diagnosis and characterisation of
CC chronic joint diseases, on the basis of molecular characterisation, and
CC determining the etiological pathogenicity principle of as yet
CC uncharacterised inflammatory diseases, also monitoring progression and/or
CC treatment of disease, and optimisation of therapy and (iii) for
CC developing treatments for inflammatory diseases, particularly of joints,
CC infections and tumours. ACA64801-ACA64965 represent human polynucleotides

CC used in the method of the invention
XX
SQ Sequence 1585 BP; 352 A; 473 C; 389 G; 371 T; 0 U; 0 Other;
Query Match 100.0%; Score 104; DB 7; Length 1585;
Best Local Similarity 100.0%; Pred. No. 4.7e-25;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 GAATTCAAACCTGGGGCTCCAGAACTCACTGGGGCTACAGCTTTGATCCCTGACATCTG 60
Db 1003 GAATTCAAACCTGGGGCTCCAGAACTCACTGGGGCTACAGCTTTGATCCCTGACATCTG 1062
QY 61 GAATCTGGAGACCCAGGAGCCTTTGGTTCTGGCCAGAAATGCTGC 104
Db 1063 GAATCTGGAGACCCAGGAGCCTTTGGTTCTGGCCAGAAATGCTGC 1106
RESULT 11
AAN60446
ID AAN60446 standard; cDNA; 1606 BP.
XX
AC AAN60446;
XX
DT 25-MAR-2003 (revised)
DT 07-AUG-1991 (first entry)
XX
DE Sequence encoding tumour necrosis factor (TNF).
XX
KW Anticancer agent; antitumour; antimalarial; tumour necrosis factor; ss.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT CDS 158..859
FT /*tag= a
XX
PN WO8603751-A.
XX
PD 03-JUL-1986.
XX
PF 19-DEC-1985; 85WO-EP000721.
XX
PR 21-DEC-1984; 84US-00684595.
PR 09-OCT-1985; 85US-00785847.
PR 09-OCT-1986; 86WO-US002133.
XX
PA (BIOJ) BIOGEN NV.
PA (FIER/) FIER W C.
PA (ALLE/) ALLET B.
PA (BIOJ) BIOGEN INC.
XX
PI Fiers WC, Franssen LM, Tavernier JHL, Marmenout ALM, Vanderheyd J;
PI Allet B;
XX
DR WPI; 1986-182891/28.
DR P-PSDB; AAP60531.
XX
PT Mammalian tumour necrosis factors - produced by culturing pro-karyotic
PT hosts transformed with recombinant DNA.
XX
PS Example; Fig 9; 93pp; English.
XX
CC TNF-like polypeptides and compns. are produced by the fermentation of
CC host cells transformed with at least one DNA sequence which codes for a
CC mammalian TNF-like polypeptide operatively linked to an expression
CC control sequence in the transformed host. (Updated on 25-MAR-2003 to
CC correct PA field.)
XX
SQ Sequence 1606 BP; 357 A; 494 C; 394 G; 361 T; 0 U; 0 Other;
Query Match 100.0%; Score 104; DB 1; Length 1606;
Best Local Similarity 100.0%; Pred. No. 4.7e-25;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 GAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTTGATCCCTGACATCTG 60
Db 1075 GAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTTGATCCCTGACATCTG 1134

QY 61 GAATCTGGAGACCAGGAGCCTTTGGTTCTTGCCAGAAATGCTGC 104
Db 1135 GAATCTGGAGACCAGGAGCCTTTGGTTCTTGCCAGAAATGCTGC 1178

RESULT 12
AAT15424
ID AAT15424 standard; cDNA; 1606 BP.
XX
AC AAT15424;
XX
DT 25-MAR-2003 (revised)
DT 23-APR-1996 (first entry)
XX
DE Human tumour necrosis factor cDNA clone p-hTNF-1.
XX
KW Tumour necrosis factor; TNF; phage T4; phage lambda; pL promoter;
KW antitumour; anticancer; antimalarial; ss.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT CDS 158..859
FT /*tag= a
FT sig_peptide 158..385
FT /*tag= b
FT mat_peptide 386..856
FT /*tag= c
XX
PN US5487984-A.
XX
PD 30-JAN-1996.
XX
PF 20-DEC-1985; 85US-00811654.
XX
PR 21-DEC-1984; 84US-00684595.
PR 09-OCT-1985; 85US-00785847.
XX
PA (BIOJ) BIOGEN INC.
XX
PI Allet B, Kawashima EH;
XX
DR WPI; 1996-105230/11.
DR P-PSDB; AAR88590.
XX
PT Prodn. of tumour necrosis factor - using recombinant DNA encoding TNF
PT under the control of T4 or lambda pL-T4 expression control sequences.
XX
PS Example 9; Fig 9; 43pp; English.
XX
CC A cDNA clone (AAT15424), p-hTNF-1 (DSM 3160), codes for the human tumour
CC necrosis factor (hTNF) precursor (AAR88590). It was obtd. by screening a
CC human cDNA library with a fragment of mouse TNF cDNA. The isolated cDNA
CC may be linked to expression control sequences from phage T4 or phage
CC lambda (see AAT15402-05 and AAT15425-26) for expression in host cells,
CC esp. Escherichia coli, and commercial-scale prodn. of recombinant TNF of
CC use as an antitumour, anticancer and antimalarial agent. (Updated on 25-
CC MAR-2003 to correct PF field.)
XX
SQ Sequence 1606 BP; 357 A; 494 C; 394 G; 361 T; 0 U; 0 Other;
XX
Query Match 100.0%; Score 104; DB 2; Length 1606;
Best Local Similarity 100.0%; Pred. No. 4.7e-25;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 GAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTTGATCCCTGACATCTG 60
Db 1075 GAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTTGATCCCTGACATCTG 1134

QY 61 GAATCTGGAGACCAGGAGCCTTTGGTTCTTGCCAGAAATGCTGC 104
Db 1135 GAATCTGGAGACCAGGAGCCTTTGGTTCTTGCCAGAAATGCTGC 1178

RESULT 13
AAT31021
ID AAT31021 standard; DNA; 1643 BP.
XX
AC AAT31021;
XX
DT 26-SEP-1996 (first entry)
XX
DE Human tumour necrosis factor cDNA clone HSTNFR.
XX
KW Gene therapy; hypoxia related enhancer element; HREE; ischaemia;
KW reperfusion; promoter; tumour necrosis factor; TNF; ds.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT CDS 153..854
FT /*tag= a
XX
PN W09620276-A1.
XX
PD 04-JUL-1996.
XX
PF 13-NOV-1995; 95WO-IB0000996.
XX
PR 23-DEC-1994; 94US-00365486.
XX
PA (STRI) SRI INT.
XX
PI Webster KA, Bishopric NH, Murphy B, Laderoute KR, Green CJ;
XX
DR WPI; 1996-321849/32.
DR P-PSDB; AAW00454.
XX
PT Chimeric gene contg. therapeutic gene linked to HREE - partic. for
PT expressing SOD etc. in hypoxic tissue to reduce tissue injury caused by
PT ischaemia or reperfusion.
XX
PS Example 8; Page 100-101; 118pp; English.
XX
CC A PCR-generated DNA fragment (AAT31021) encoding human tumour necrosis
CC factor (hTNF) (AAW00454). hTNF induces apoptosis and is not known to be
CC induced by hypoxic stress. A -90 bp human metallothionein IIA promoter
CC fragment (see also AAT31003) was inserted upstream of the hTNF gene and
CC the construct was used to transfect mouse C2C12 myoblasts and A431 cells.
CC Hypoxia-mediated TNF induction and tumour control were demonstrated in
CC an animal xenograft model
XX
SQ Sequence 1643 BP; 370 A; 495 C; 398 G; 380 T; 0 U; 0 Other;
XX
Query Match 100.0%; Score 104; DB 2; Length 1643;
Best Local Similarity 100.0%; Pred. No. 4.7e-25;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 GAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTTGATCCCTGACATCTG 60
Db 1070 GAATTCAAACTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTTGATCCCTGACATCTG 1129

QY 61 GAATCTGGAGACCAGGAGCCTTTGGTTCTTGCCAGAAATGCTGC 104
Db 1130 GAATCTGGAGACCAGGAGCCTTTGGTTCTTGCCAGAAATGCTGC 1173

RESULT 14
ABK13195
ID ABK13195 standard; DNA; 1643 BP.
XX

Search completed: September 2, 2004, 08:05:11
Job time : 375.136 secs

QY 1 GAATTCAAACCTGGGGCCCTCCACAACCTCACTGGGGCCCTACAGCTTTGATCCCTGACATCTG 60